

scroll

Spiral-shaped decorative end of the peg box.

peg

Piece of wood or metal that rolls the end of a string to adjust its tension to obtain the exact note.

ART & ARCHITECTURE

fingerboard

Board on which the player's fingers are placed to control the length of the vibrating string to determine the pitch of a note.

purfling

Ornamental strip of wood around the edge of the soundboard and the bottom of the sound box.

soundboard

The upper, slightly convex face of the instrument; it has two holes and receives vibrations from the bridge, which it transmits to the sound box.

rib

Each of the thin pieces of wood that form the sides of the instrument.

bridge

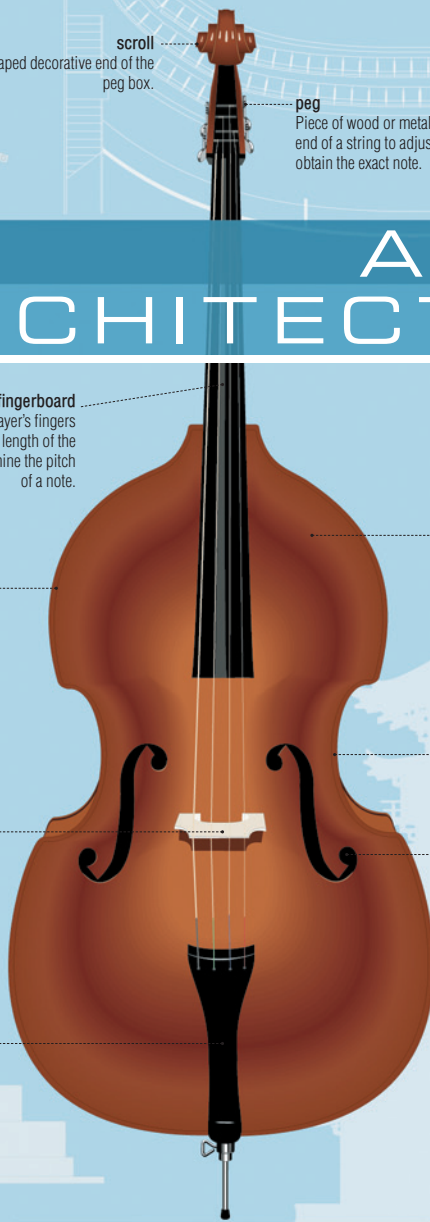
Piece of wood over which the strings are stretched; it transmits their vibrations to the soundboard.

sound hole

Each of the openings whose function is to release sound from the sound box.

tailpiece

Piece of wood to which the bottom ends of the strings are attached.



ART & ARCHITECTURE

Jean-Claude **Corbeil**

Ariane **Archambault**

ACKNOWLEDGEMENTS

Our deepest gratitude to the individuals, institutions, companies, and businesses that have provided us with the latest technical documentation for use in preparing this dictionary.

Arcand, Denys (motion picture director); International Association of Marine Aids to Navigation and Lighthouse Authority; Canadian Payments Association (Charlie Clarke); Canadian Bankers Association (Lise Provost); Automobiles Citroën; Automobiles Peugeot; Bank of Canada (Lyse Brousseau); Royal Bank of Canada (Raymond Chouinard, Francine Morel, Carole Trottier); Barrett Xplore inc.; Bazarin, Christine; Library of Canadian Parliament (Information Services); Bibliothèque nationale du Québec (Jean-François Palomino); Bluechip Kennels (Olga Gagne); Bombardier Aerospace; Bridgestone-Firestone; Brother (Canada); Canadian National; Casavant Frères Ltée; C.O.J.O. ATHENS 2004 (International Media Service); Centre Eaton de Montréal; Centre national du costume (Recherche et diffusion); Cetacean Society International (William R. Rossiter); Chagnon, Daniel (architect D.E.S. - M.E.Q.); Cohen et Rubin Architectes (Maggy Cohen); Commission scolaire de Montréal (École St-Henri); Hudson Bay Company (Nunzia Iavarone, Ron Oyama); Corporation d'hébergement du Québec (Céline Drolet); National Theatre School of Canada (Library); Élevage Le Grand Saphir (Stéphane Aytte); Atomic Energy of Canada; Eurocopter; Famous Players; Fédération bancaire française (Védi Hékiman); Fontaine, Pierre-Henry (biologist); Future Shop; Garaga; Groupe Jean Coutu; Hôpital du Sacré-Cœur de Montréal; Hôtel Inter-Continental; Hydro-Québec; I.P.I.Q. (Serge Bouchard); IGA Barcelo; International Entomological Society (Dr. Michael Geisthardt); Irisbus; Jérôme, Danielle (O.D.); La Poste (Colette Gouts); Le Groupe Canam Manac inc.; Lévesque, Georges (urgentologist); Lévesque, Robert (chief machinist); Manutan; Marriott SpringHill Suites; MATRA S.A.; Métro inc.; National Defence of Canada (Public Affairs); ministère de la Défense, République Française; ministère de la Justice du Québec (Service de la gestion immobilière - Carol Sirois); ministère de l'Éducation du Québec (Direction de l'équipement scolaire - Daniel Chagnon); Muse Productions (Annick Barbéry); National Aeronautics and Space Administration; National Oceanic and Atmospheric Administration; Nikon Canada inc.; Normand, Denis (telecommunications consultant); Office de la langue française du Québec (Chantal Robinson); Paul Demers & Fils inc.; Phillips (France); Pratt & Whitney Canada inc.; Prévost Car inc.; Radio Shack Canada Ltée; Réno-Dépôt inc.; Robitaille, Jean-François (Department of Biology, Laurentian University); Rocking T Ranch and Poultry Farm (Pete and Justine Theer); RONA inc.; Sears Canada inc.; Public Works and Government Services Canada; Translation Bureau; Correctional Service Canada; Société d'Entomologie Africaine (Alain Drumont); Société des musées québécois (Michel Perron); Société Radio-Canada; Sony du Canada Ltée; Sûreté du Québec; Théâtre du Nouveau Monde; Transport Canada (Julie Poirier); Urgences-Santé (Éric Berry); Ville de Longueuil (Direction de la Police); Ville de Montréal (Service de la prévention des incendies); Vimont Lexus Toyota; Volvo Bus Corporation; Yamaha Motor Canada Ltd.

Art & Architecture was created and produced by

ISBN 978-2-7644-0877-3



QA International

329 De la Commune West, 3rd Floor
Montreal (Quebec) H2Y 2E1 Canada
T 514.499.3000 F 514.499.3010
www.qa-international.com

© QA International 2009. All rights reserved.

No part of this book may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying, recording, or by any information storage and retrieval system, without permission in writing by QA International.

Printed and bound in Singapore
10 9 8 7 6 5 4 3 2 1 12 11 10 09
www.qa-international.com
Version 3.5.1

EDITORIAL STAFF

Editor: Jacques Fortin
Authors: Jean-Claude Corbeil and
Ariane Archambault
Editorial Director: François Fortin
Editor-in-Chief: Anne Rouleau
Graphic Designer: Anne Tremblay

PRODUCTION

Nathalie Fréchette
Josée Gagnon

TERMINOLOGICAL RESEARCH

Jean Beaumont
Catherine Briand
Nathalie Guillo

ENGLISH DEFINITIONS

Nancy Butchart
Rita Cloghesy
Tom Donovan
Diana Halfpenny
John Woolfrey
Kathe Roth

ILLUSTRATIONS

Artistic Direction: Jocelyn Gardner
Jean-Yves Ahern
Rielle Lévesque
Alain Lemire
Mélanie Boivin
Yan Bohler
Claude Thivierge
Pascal Bilodeau
Michel Rouleau
Anouk Noël
Carl Pelletier
Raymond Martin

CONTRIBUTIONS

QA International wishes to extend a special thank you to the following people for their contribution to this book:

Jean-Louis Martin, Marc Lalumière, Jacques Perrault, Stéphane Roy, Alice Comtois, Michel Blais, Christiane Beauregard, Mamadou Togola, Annie Maurice, Charles Campeau, Mivil Deschênes, Jonathan Jacques, Martin Lortie, Frédéric Simard, Yan Tremblay, Mathieu Blouin, Sébastien Dallaire, Hoang Khanh Le, Martin Desrosiers, Nicolas Oroc, François Escalmel, Danièle Lemay, Pierre Savoie, Benoît Bourdeau, Marie-Andrée Lemieux, Caroline Soucy, Yves Chabot, Anne-Marie Ouellette, Anne-Marie Villeneuve, Anne-Marie Brault, Nancy Lepage, Daniel Provost, François Vézina, Guylaine Houle, Daniel Beaulieu, Sophie Pellerin, Tony O'Riley, Mac Thien Nguyen Hoang, Serge D'Amico.

LAYOUT

Pascal Goyette
Danielle Quinty
Émilie Corriveau
Preliminary layout: Émilie Bellemare
Sonia Charette

DOCUMENTATION

Gilles Vézina
Kathleen Wynd
Stéphane Batigne
Sylvain Robichaud
Jessie Daigle

DATA MANAGEMENT

Programmer: Éric Gagnon
Josée Gagnon

REVISION

Veronica Schami
Jo Howard
Marie-Nicole Cimon
Liliane Michaud
Sophie Ballarin

PREPRESS

Karine Lévesque
François Hénault
Julien Brisebois
Patrick Mercure

INTRODUCTION

EDITORIAL POLICY

The Visual Dictionary takes an inventory of the physical environment of a person who is part of today's technological age and who knows and uses a large number of specialized terms in a wide variety of fields.

Designed for the general public, it responds to the needs of anyone seeking the precise, correct terms for a wide range of personal or professional reasons: finding an unknown term, checking the meaning of a word, translation, advertising, teaching material, etc.

The target user has guided the choice of contents for *The Visual Dictionary*, which aims to bring together in 12 thematic books the technical terms required to express the contemporary world, in the specialized fields that shape our daily experience.

STRUCTURE

Each tome has three sections: the preliminary pages, including the table of contents; the body of the text (i.e. the detailed treatment of the theme); the index.

Information is presented moving from the most abstract to the most concrete: sub-theme, title, subtitle, illustration, terminology.

TERMINOLOGY

Each word in *The Visual Dictionary* has been carefully selected following examination of high-quality documentation, at the required level of specialization.

There may be cases where different terms are used to name the same item. In such instances, the word most frequently used by the most highly regarded authors has been chosen.

Words are usually referred to in the singular, even if the illustration shows a number of individual examples. The word designates the concept, not the actual illustration.

DEFINITIONS

Within the hierarchical format of *The Visual Dictionary*'s presentation, the definitions fit together like a Russian doll. For example, the information within the definition for the term *insect* at the top of the page does not have to be repeated for each of the insects illustrated. Instead, the text concentrates on defining the distinguishing characteristics of each insect (the *louse* is a parasite, the female *yellow jacket* stings, and so forth).

Since the definition leaves out what is obvious from the illustration, the illustrations and definitions complement one another.

The vast majority of the terms in the *Visual Dictionary* are defined. Terms are not defined when the illustration makes the meaning absolutely clear, or when the illustration suggests the usual meaning of the word (for example, the numerous *handles*).

METHODS OF CONSULTATION

Users may gain access to the contents of *The Visual Dictionary* in a variety of ways:

- From the TABLE OF CONTENTS at the end of the preliminary pages, the user can locate by title the section that is of interest.
- With the INDEX, the user can consult *The Visual Dictionary* from a word, so as to see what it corresponds to, or to verify accuracy by examining the illustration that depicts it.
- The most original aspect of *The Visual Dictionary* is the fact that the illustrations enable the user to find a word even if he or she only has a vague idea of what it is. The dictionary is unique in this feature, as consultation of any other dictionary requires the user first to know the word.

TITLE

Its definition is found below. If the title refers to information that continues over several pages, after the first page it is shown in a shaded tone with no definition.

TERM

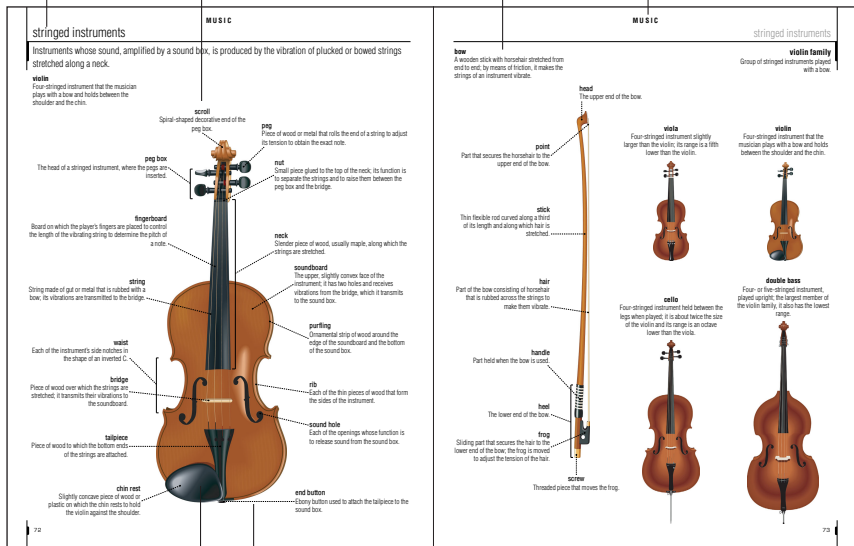
Each term appears in the index with a reference to the pages on which it appears.

DEFINITION

It explains the inherent qualities, function, or characteristics of the element depicted in the illustration.

SUB-THEME

These are shown at the end of the preliminary pages along with their definitions. They are then repeated on each page of a section, but without the definition.



ILLUSTRATION

It is an integral part of the visual definition for each of the terms that refer to it.

NARROW LINES

These link the word to the item indicated. Where too many lines would make reading difficult, they have been replaced by color codes with captions or, in rare cases, by numbers.

CONTENTS

8 FINE ARTS

- 8 Museum
- 11 Painting and drawing
- 19 Wood carving

21 GRAPHIC ARTS

- 21 Printing
- 22 Relief printing process
- 24 Intaglio printing process
- 26 Lithography
- 28 Fine bookbinding
- 34 Writing instruments

36 PERFORMING ARTS

- 36 Movie theater
- 38 Movie set
- 41 Theater

44 VISUAL ARTS

- 44 Photography

58 MUSIC

- 58 Traditional musical instruments
- 62 Musical notation
- 66 Musical accessories
- 68 Symphony orchestra
- 70 Examples of instrumental groups
- 72 Stringed instruments
- 78 Keyboard instruments
- 88 Wind instruments
- 94 Percussion instruments
- 98 Electronic instruments

102 CRAFTS

- 102 Sewing
- 112 Knitting machine
- 115 Knitting
- 117 Bobbin lace
- 118 Embroidery
- 120 Weaving
- 128 Pottery

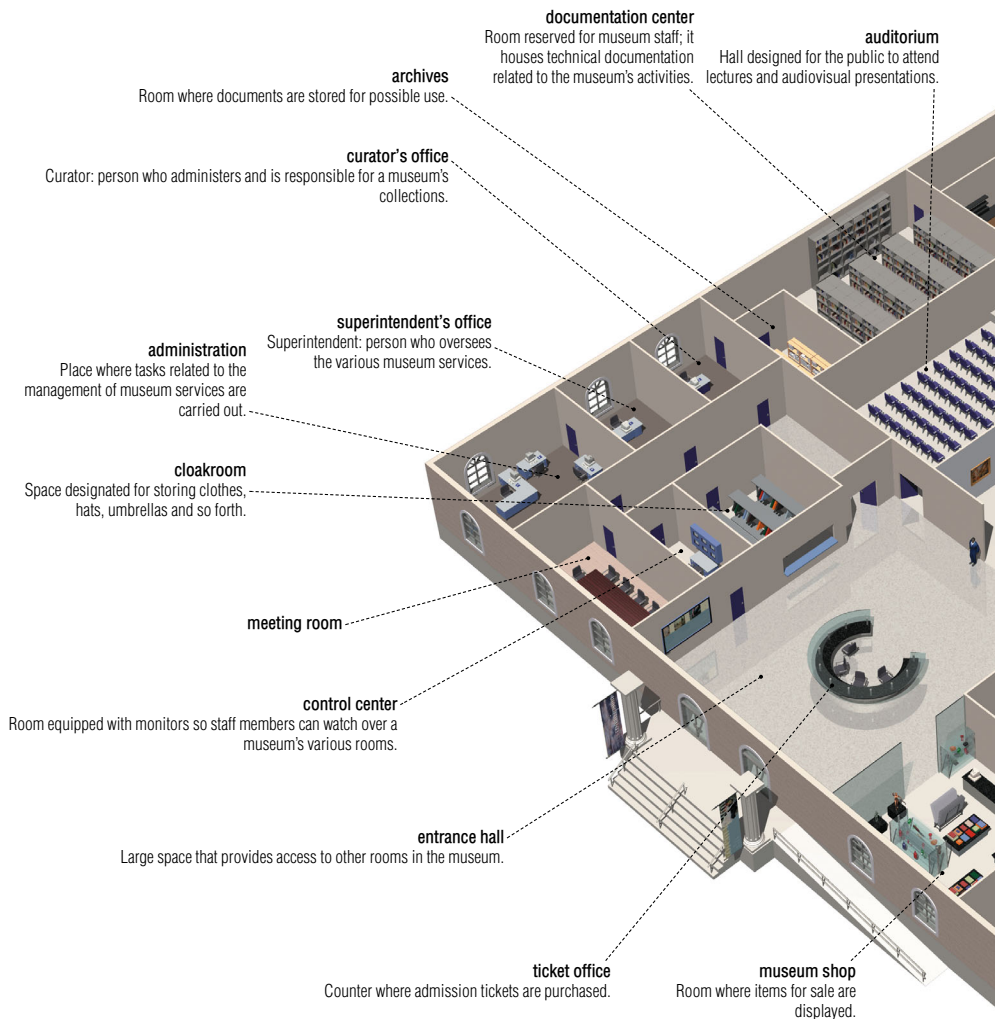
132 ARCHITECTURE

- 132 Pyramid
- 133 Greek theater
- 134 Greek temple
- 137 Architectural styles
- 140 Roman house
- 142 Roman amphitheater
- 144 Castle
- 146 Vauban fortification
- 148 Cathedral
- 153 Pagoda
- 154 Aztec temple
- 156 Elements of architecture
- 163 Escalator
- 164 Elevator
- 166 Traditional houses
- 167 City houses

169 INDEX

museum

Establishment where works of art are stored and exhibited.



Room designed for the maintenance and restoration of artwork.

sculpture

Artwork created from a material, which is worked to depict a given form.

interactive terminals

Interactive computers with touch screens or keyboards that, with the visitor's participation, provide a variety of information.

installation work

Three-dimensional artwork composed of elements arranged in a precise order, in keeping with the artist's intention.

temporary exhibition rooms

Rooms designed to house short-term exhibitions of a given artist or theme.

- projection room

Room occasionally used to present audiovisual materials related to the exhibition's artist or theme.

- permanent exhibition rooms

Rooms where the museum mounts long-term showings of the works in its collection.

• painting

Pictorial work usually executed on a canvas, which is stretched and then framed.

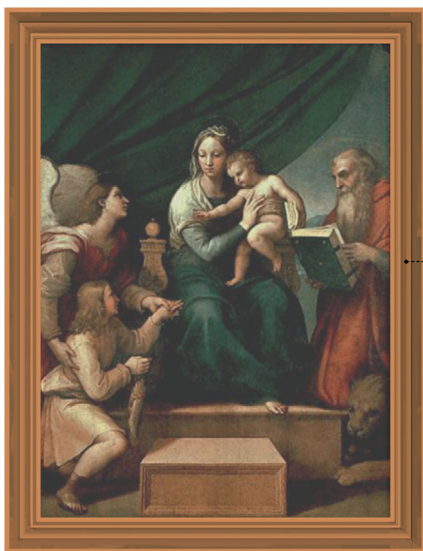
- library

Room where items such as books, periodicals and audio materials are classified for consultation or loan.



audioguide

Handheld device that allows users to listen, in their own language, to commentary on the artwork exhibited.



painting

Pictorial work usually executed on a canvas, which is stretched and then framed.

frame

Rigid border around a painting or engraving that protects it and makes it possible to hang it.



work sheet

Stiff paper containing information about a work of art.

Arts that use graphics and color to represent or suggest visible or imagined concepts on a surface.

major techniques

The processes used to execute drawings and paintings.



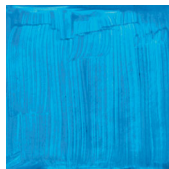
oil painting

Technique used to achieve an opaque, transparent, matte or brilliant finish, depending on the composition of the paint.



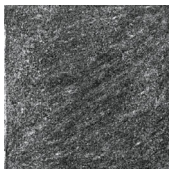
watercolor

Mixture of pigment powder agglutinated with a water-soluble binder; when it is diluted, a transparent effect is created.



gouache

Mixture of roughly ground pigment and chalk agglutinated with a water-soluble binder; when it is diluted, an opaque effect is created.



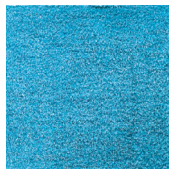
charcoal drawing

Sketching technique that can create tones ranging from the darkest blacks to the lightest grays.



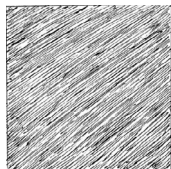
wax crayon drawing

Technique used mostly by children to create a precise line and a brilliant color effect.



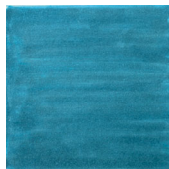
colored pencil drawing

Technique for combining precise lines with color, and then applying layers of color to achieve new shades.



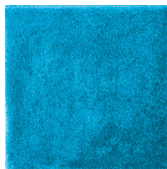
ink drawing

Technique usually involving the use of a pen to create fine and precise lines.



felt tip pen drawing

Technique for producing precise lines and gradations of color.



dry pastel drawing

Technique whose powdery line creates a velvety effect.



oil pastel drawing

Technique that provides a bold stroke similar to that of an oil painting.

painting and drawing

equipment

Materials, instruments and accessories used to create a drawing or painting.

**watercolor/gouache cakes**

Small watercolor or gouache disks inserted into cells to prevent the colors from mixing.

**wax crayons**

Sticks composed of pigment molded with wax.

**oil pastel**

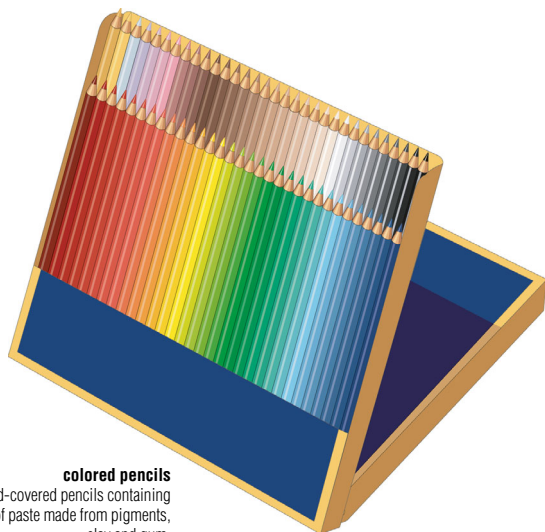
Mixture of pigments, wax and sometimes oily substances in stick form.

**watercolor/gouache tube**

Tube containing watercolor or gouache in paste form.

**dry pastel**

Mixture of pigment powder agglutinated using a gum-based binder, then shaped into sticks and dried.

**colored pencils**

Wood-covered pencils containing sticks of paste made from pigments, clay and gum.

**marker pen**

Bevel-tipped color felt pen of variable size.

**oil paint**

Oil-based pigment that comes in a tube; the artist uses oil or essences to dilute it and prepare it for application.

**felt tip pen**

Pen whose felt tip is permeated with ink; it comes in a variety of colors.

**ink**

Liquid preparation, black or colored, used to write or draw.

**fan brush**

Brush used to achieve color gradations by blending colors that have already been applied to a canvas.

**painting knife**

Instrument with a trowel-shaped blade used to mix colors and to spread them on and remove them from the canvas.

**brush**

Natural or synthetic bristles attached to a handle, used for spreading paint, varnish or stain on a base.

**flat brush**

Brush made from natural or synthetic bristles affixed to a handle and used mostly for oil painting on large surfaces.

**reservoir-nib pen**

Drawing instrument with a curved tip containing a small amount of ink.

**charcoal**

Stick of charcoal used for sketching; it erases easily.

**spatula**

Instrument with a flat flexible blade used to mix colors, spread them on a canvas or scrape down the palette.

**sumi-e brush**

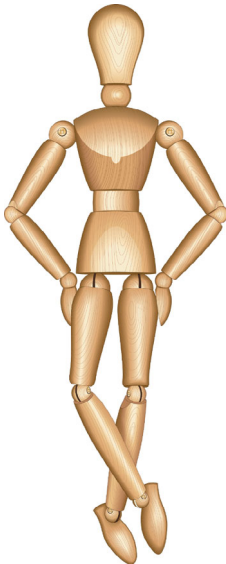
Brush made from natural bristles affixed to a bamboo handle and used for drawing with India ink.

palette with hollows

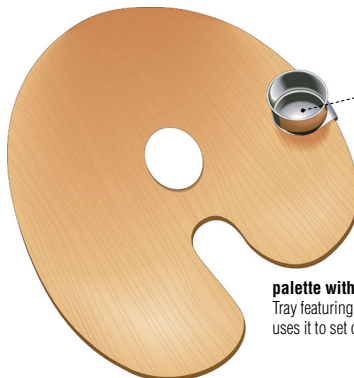
Tray featuring a thumb hole and hollows where the paint is placed before it is mixed.

**color chart**

Sample of the different color shades provided by a manufacturer.

**articulated mannequin**

Wooden figurine used to visualize various positions assumed by the human body.

**dipper**

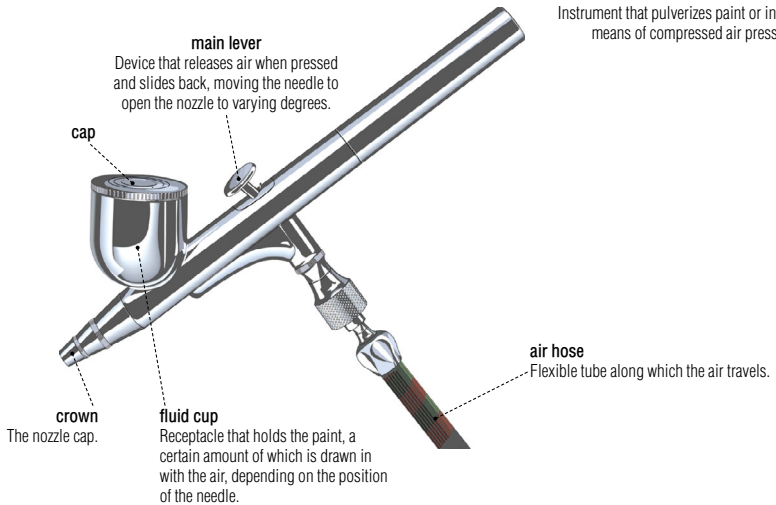
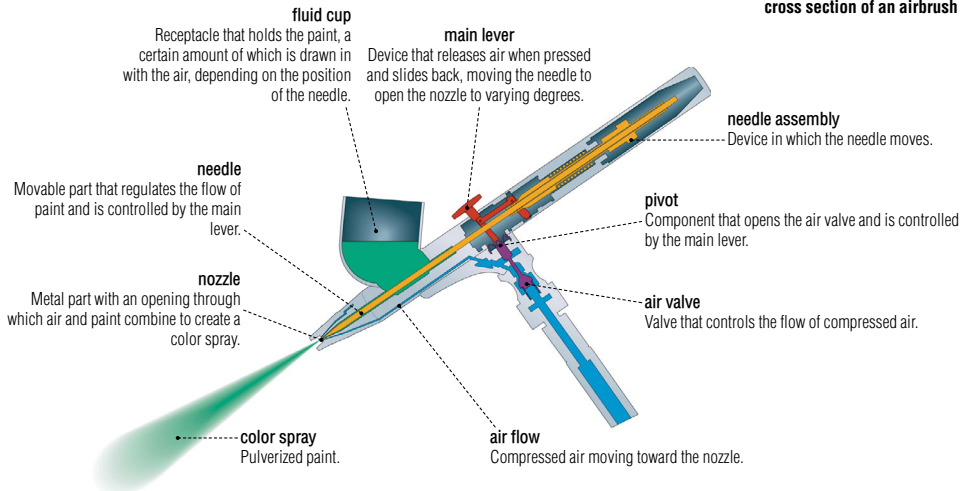
Small metal receptacle fastened to the palette; it contains the oil and essences used to dilute color.

palette with dipper

Tray featuring a thumb hole and a dipper; the painter uses it to set out colors and mix them.

airbrush

Instrument that pulverizes paint or ink by means of compressed air pressure.

**cross section of an airbrush**

accessories

drafting table

Table whose height and incline can be adjusted; it is equipped with a drafting machine.

adjustable lamp

Multidirectional light usually mounted on a worktable by an adjustable clamp.

drawing board

Perfectly level wooden board whose incline can be adjusted; the drafting paper is placed on it.

storage tray**ruler**

Instrument used to draw a straight line and to measure length.

track

Rail along which the drafting machine moves vertically and horizontally.

drafting machine

Instrument that moves along the drawing board and contains technical drawing instruments.

adjustment pedal

Device that regulates the height and angle of the drafting table.

maulstick

Stick with a ball-shaped end covered with fabric or skin; it rests on the easel and is used to support the brush hand.

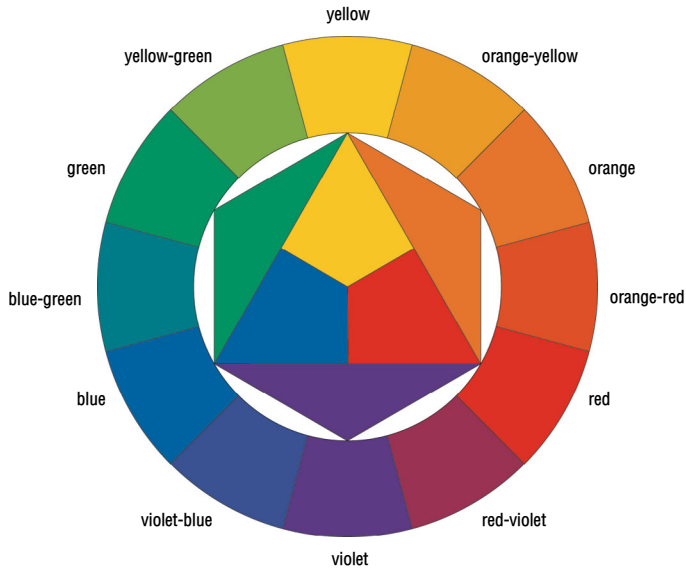
easel

Tripod on which a canvas is placed to execute a work or show it.



color circle

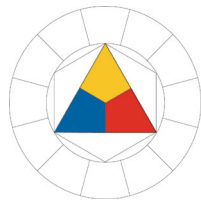
Representation of the color spectrum on a circle.

**tertiary colors**

Colors obtained by mixing equal proportions of a primary color and a secondary color.

**secondary colors**

Colors obtained by mixing equal proportions of two primary colors.

**primary colors**

Colors that cannot be obtained by mixing other colors.

painting and drawing

utility liquids

Utility liquids are used to prepare a color or protect a work of art.

**linseed oil**

Oil made from linseeds; it acts as a binding agent so that pigment adheres to a surface.

**varnish**

Preparation with no pigment; when applied to a surface, it forms a protective film.

**turpentine**

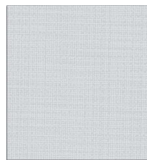
An essential oil obtained by the distillation of natural resins and used mostly as an oil paint thinner.

**fixative**

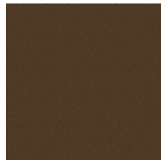
Transparent solution in liquid or aerosol form applied to protect a drawing in charcoal, chalk, pastel or pencil.

supports

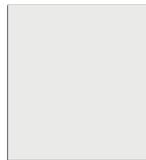
Surfaces on which paintings, drawings and engravings are created.

**canvas**

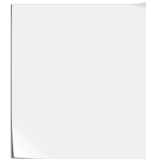
Piece of fabric covered with a primer and set on a stretcher; it serves as the surface for the painting.

**panel**

Wooden board that serves as a rigid support for a painting.

**cardboard**

Somewhat rigid sheet made of several layers of paper pulp; its function is to support a drawing or painting.

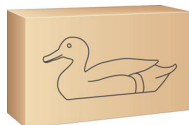
**paper**

Vegetable substance reduced to paste, rolled and then dried into thin sheets that serve as a surface for a drawing, painting or engraving.

Art that consists of carving a piece of wood to represent or suggest an object.

steps

Phases in the development of a wood sculpture.



drawing

Step that involves drawing the piece to be carved on a wooden block.



roughing out

Step that involves bringing out the basic contours of a piece.



carving

Step that involves shaping and refining the piece.



finishing

Step that involves fine-tuning the details and polishing the surface of a piece until no evidence remains of the tools used.

major types of blades

Blade: the sharp part of a sculptor's chisel.



spoon blade

Blade used for deep gouging.



straight blade

Blade used for general work in a straight line.



blade with two beveled edges

Blade used to execute rectilinear cuts.



bent blade

Blade used for intaglio engraving.



mallet

Hammer used to strike the heel of a sharp tool to force it into the wood.



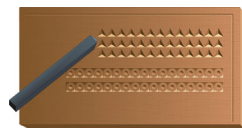
carver's bench screw

Threaded instrument used to secure a piece of wood to a stand.



stand

Small stool on which the sculptor places and secures the piece to be worked on.



punch and pattern

The punch, a metal rod, is struck to carve motifs into a slab of wood.

wood carving

examples of tools

Tools: instruments used in sculpture to cut and file wood.

knife

Tool used mainly for carving notches.

**fluteroni**

Chisel with a U-shaped blade used for delicate work.

**macaroni**

Chisel with a U-shaped blade at straight angles used for delicate work.

**block cutter**

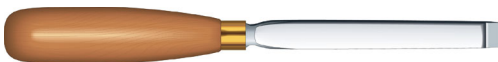
Chisel with a beveled point used in engraving to achieve subtleties of line; it was once used on copper but is now used mainly on wood.

**gouge**

Chisel with a curved blade used to create canal-shaped grooves.

**firmer chisel**

Flat chisel with beveled blade edges used to create straight cuts.

**riffer**

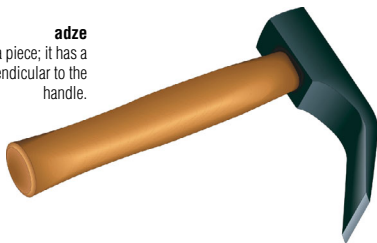
Small file used to smooth out grooves that are hard to reach.

rasp

Hand tool made up of a metal blade whose tooth-covered surface can quickly rough out wood, metal or plastic.

**adze**

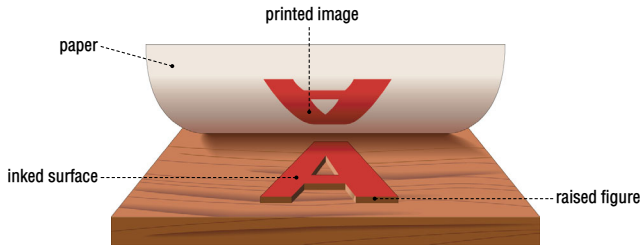
Hatchet used to rough out a piece; it has a hook or a flat nose perpendicular to the handle.



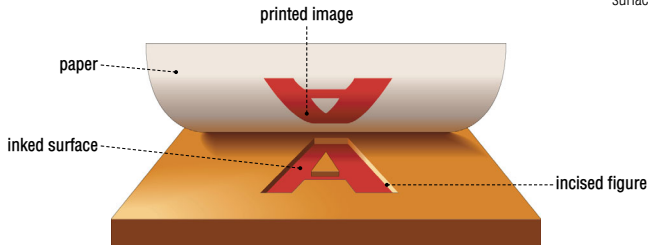
Reproduction of characters or illustrations by transferring a model to a surface, usually paper, most often using ink.

relief printing

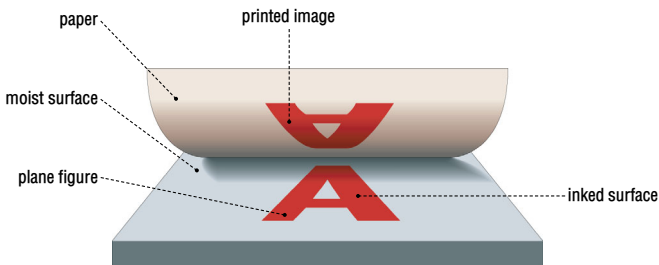
Process that consists of printing an image from a raised figure covered with a film of ink; the image is transferred to a surface by means of pressure.

**intaglio printing**

Process that consists of printing an image from an incised figure filled with ink; the image is transferred to a surface by means of pressure.

**lithographic printing**

Process that consists of printing an image from a figure on the same plane as the nonprinted parts, which are protected from the ink by dampening.

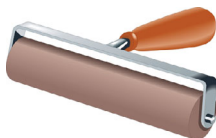


relief printing process

Technique that consists of creating a raised figure on a piece of wood.

equipment

Collective term for the materials, instruments and tools used for engraving and printing.



brayer

Instrument used to spread ink on a raised figure.



baren

Instrument that exerts pressure on the back of the paper to help the ink adhere.



knife

Tool used for engraving in the grain direction of the wood; it brings out the figure by means of incisions.



block cutter

Chisel with a beveled point used in engraving to achieve subtleties of line; it was once used on copper but is now used mainly on wood.



V-shaped gouge

Sharp V-shaped chisel used to dig deep angular grooves and to remove areas to create smaller blank spaces.



chisel

Sharp tool with a flat beveled blade used for engraving wood in the grain direction; it removes areas to create blank space around the figure and smooths out the background.



ink

Preparation in black or in color used for printing.

inking slab

Plate on which the ink is spread so it will be evenly distributed on the brayer.



ink

Preparation in black or in color used for printing.

spatula

Tool with a flat flexible blade used to spread ink or scrape down the inking slab.

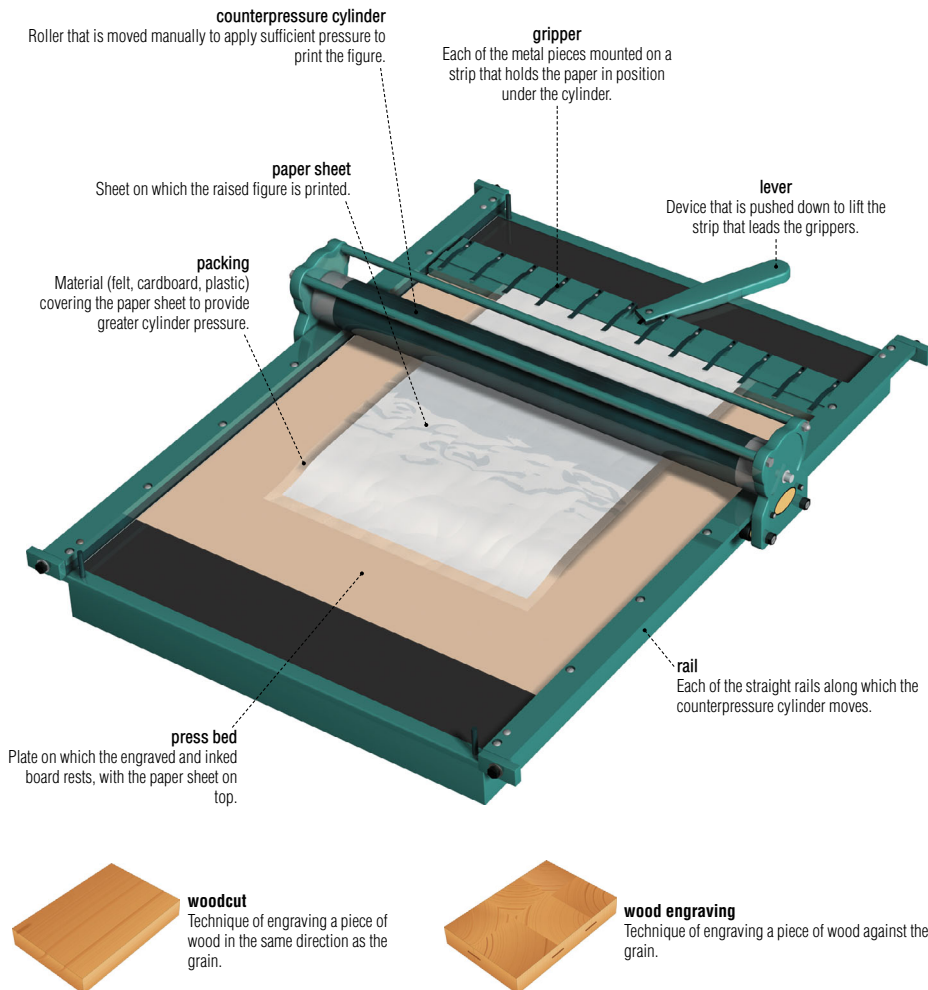


mallet

Hammer used to strike the heel of a sharp tool to drive it into wood.

proof press

Fixed-bed printing press with a cylinder that is moved along an engraved and inked board covered with a sheet of paper.



intaglio printing process

Technique that consists of drawing a figure by engraving its lines into a surface, usually a copper plate.

equipment

Collective term for the materials, instruments and tools used for engraving and printing.



drypoint

Steel rod used to engrave a figure in copper by biting into the plate or the varnish covering it.



roulette

Instrument with a steel wheel containing several rows of regular asperities and used to create coarse-grained lines.



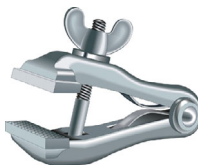
brush

Natural or synthetic bristles attached to a handle, used for spreading paint, varnish or stain on a base.



burnisher

Instrument used to refine the cuts and remove irregularities from the metal.



hand vise

Instrument used to hold and handle the plate while smoking it.



rocking tool

Tool with a thick rounded beveled steel blade; the row of vertical grooves on its sides gives the copper surface a uniform grain.



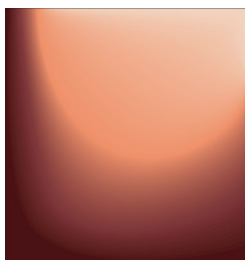
scraper

Tool with a pointed triangular blade used to remove burrs, thin strips of copper left on the edge of the groove made by the drypoint.



dabber

Instrument made up of a handle placed in a cotton wad and wrapped in silk; it is used to spread varnish on the plate.



copper plate

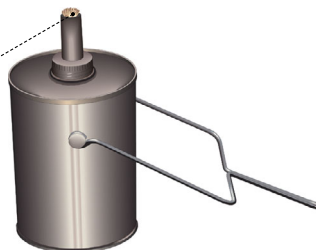
Copper is the metal most often used in engraving because it is strong, is malleable enough for engraving and reacts to chemicals.

smoking-apparatus

Instrument used to blacken the varnish and the plate with smoke; this makes the figure more visible during the engraving process.

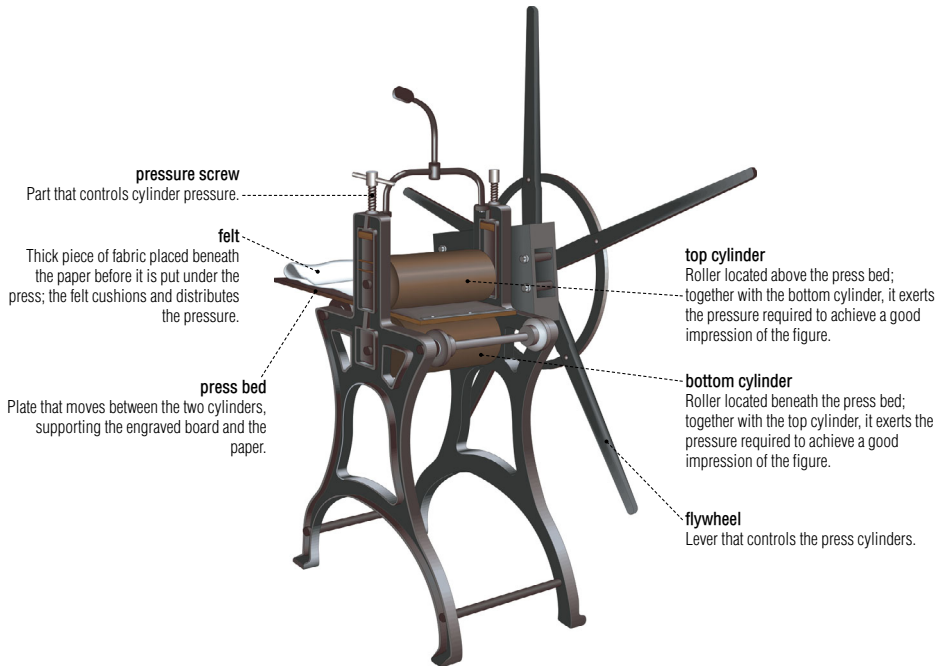
smoking candle

Wax-covered wick used to blacken the plate with smoke.



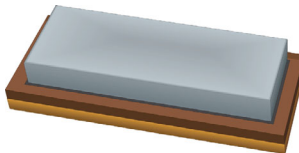
etching press

Apparatus with two cylinders; to print, an engraved and inked plate and a sheet of paper are pressed between them.



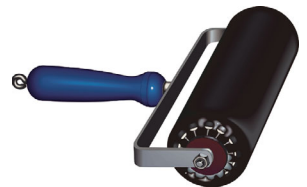
tartlatan

Muslin used to wipe excess ink from the surface of the plate.



oilstone

Stone used to sharpen tools.



varnish-roller

Instrument used to spread varnish on the surface and prevent ink from adhering to it; it ensures that only the figure is inked.

lithography

Technique of printing from a plane surface using grease to draw a figure on damp limestone; the grease retains ink, the water repels it.

equipment

Collective term for the materials, instruments and tools used for engraving and printing.



pumice correcting pencil

Instrument used to polish the stone and make corrections to the figure.



caliper

Instrument that measures the stone's thickness in order to level it.



litho pencil

Grease pencil used to draw a figure on a lithographic stone.



drypoint

Instrument used to engrave the stone in some lithographic techniques.



litho crayon

Rectangular stick of grease chalk used to draw a figure on a lithographic stone.



red ocher pencil

Stick of hematite (iron oxide) used to produce a sketch on paper; the sketch is then transferred to the stone.



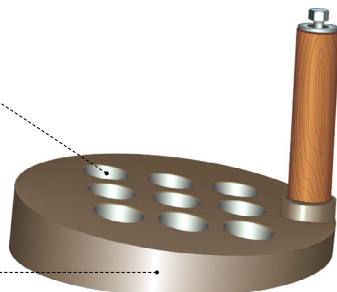
lithographic tusche

Greasy ink in liquid or solid form used to draw a figure on a lithographic stone using a pen or a brush.

levigator
Instrument that is rotated over the surface of the stone to buff it; the stone is first sprinkled with an abrasive.

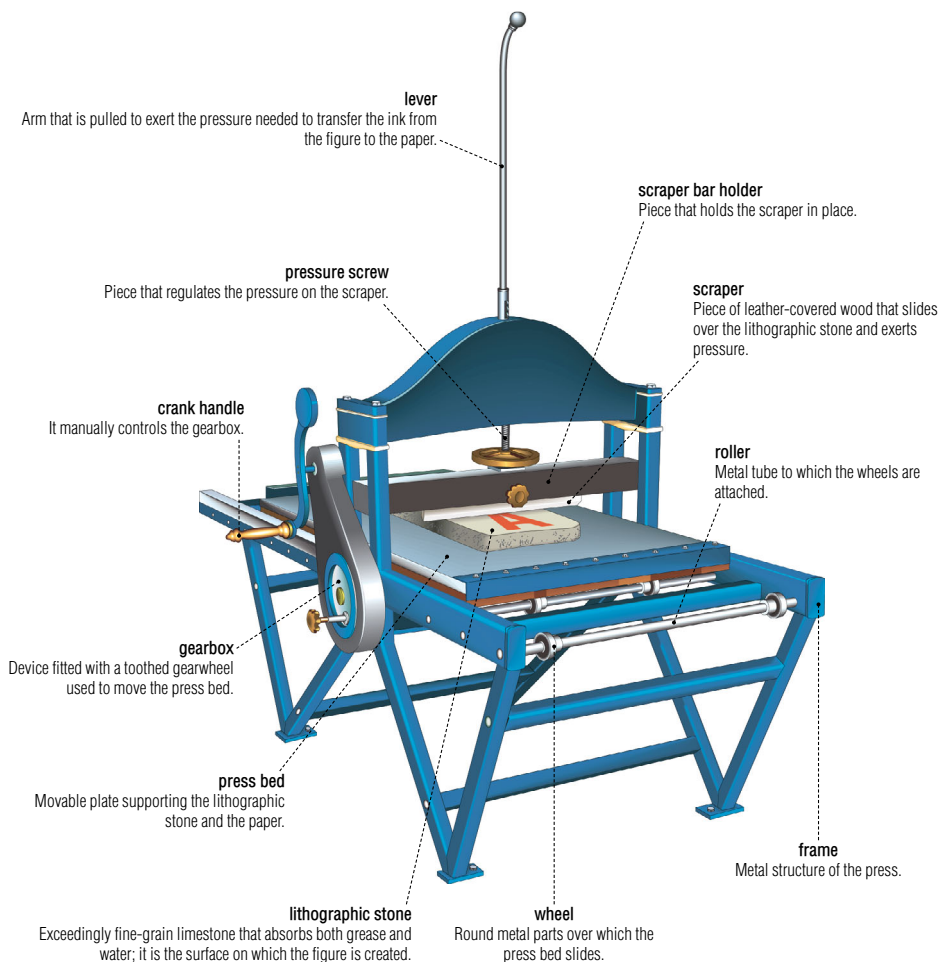
hole
Cell in which an abrasive substance is placed.

disk
Cast-iron plate with holes, used to buff the stone.



lithographic press

Manual printing press that uses pressure to print, on paper, an image created on a lithographic stone.

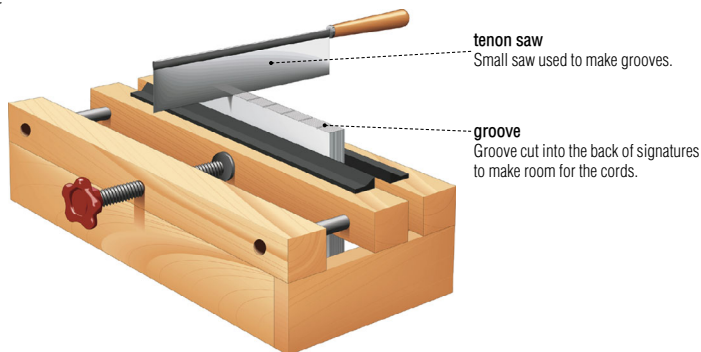


fine bookbinding

Collective term for the manual operations required to bind the sheets of a book together and add an attractive solid cover.

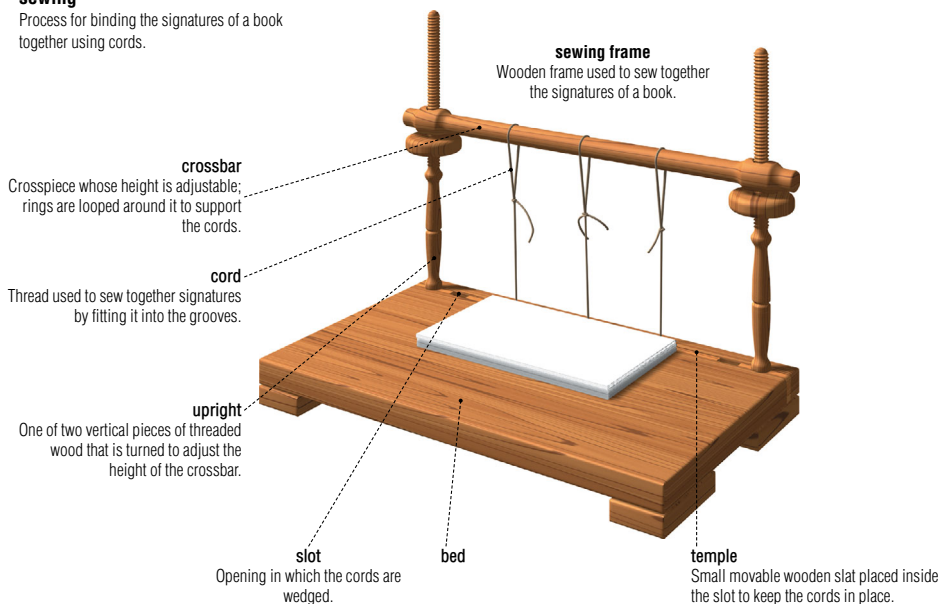
sawing-in

Process for making grooves on the backs of signatures to make room for the cords.



sewing

Process for binding the signatures of a book together using cords.

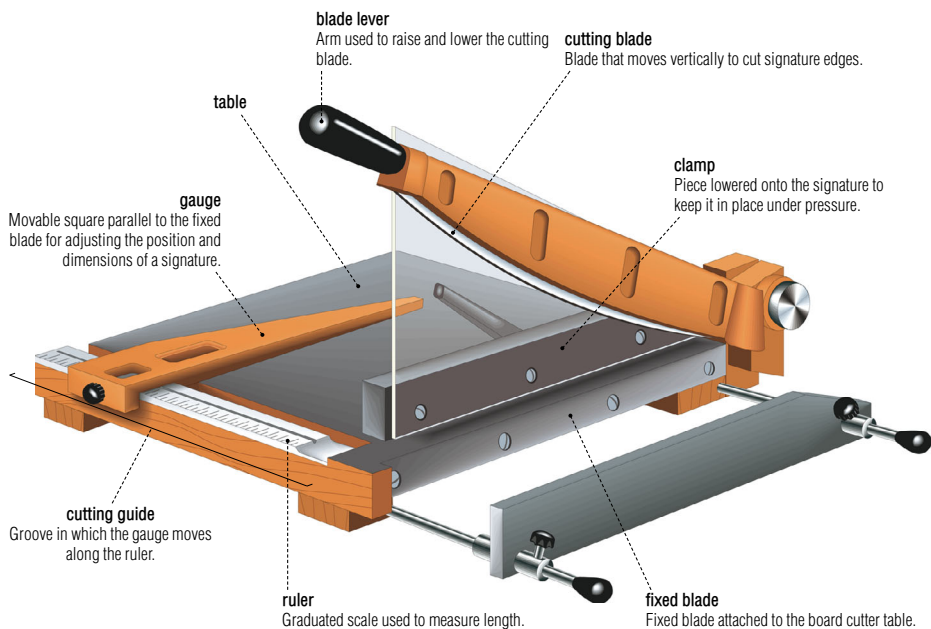


trimming

The process of evening the edges of a signature using a board cutter.

board cutter

Piece of equipment used to make square cuts in paper, cardboard, transparencies, etc.

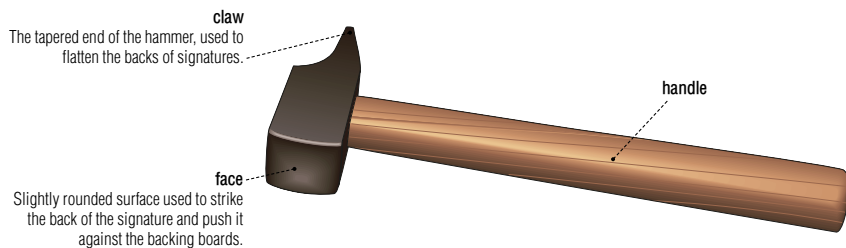


backing

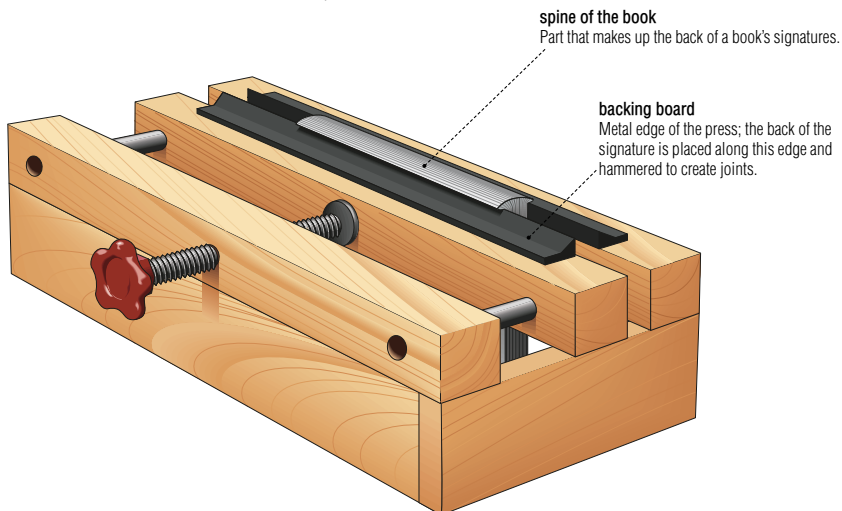
Process for creating joints, the parallel projections running the length of the book that act as hinges between the spine and the boards.

backing hammer

Tool used to flatten the back of signatures to give the spine a fan shape.

**backing press**

Press used to flatten a book so that the joints can be made.

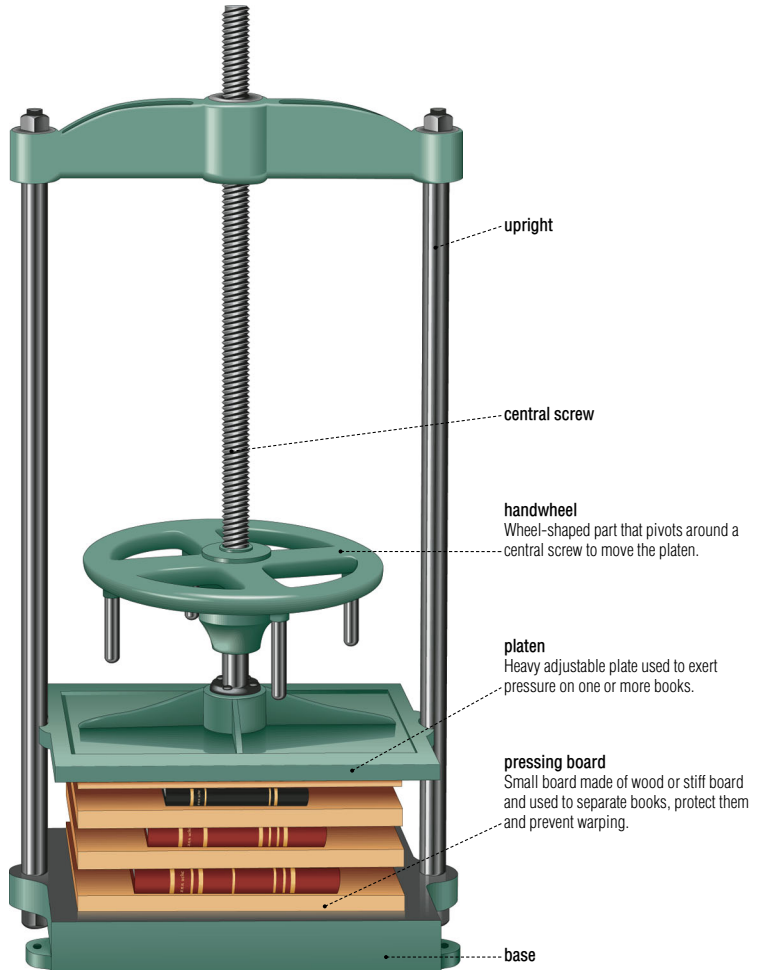


pressing

Process for exerting pressure on a book being bound in order to flatten the signatures and make them more compact.

standing press

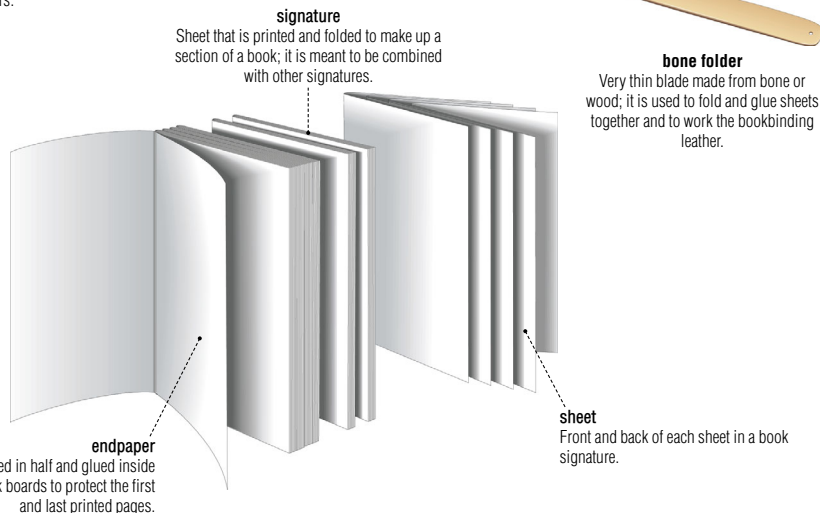
Hand-operated machine for pressing books during the binding process.



fine bookbinding

gathering

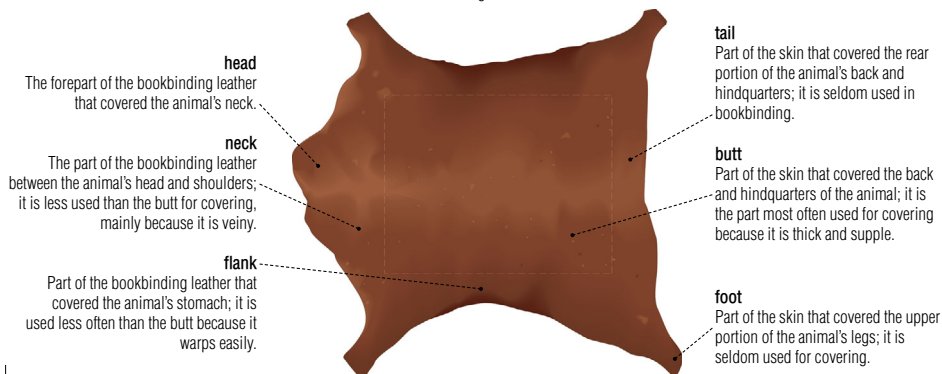
Process by which signatures are assembled together, in particular by adding endpapers.



covering

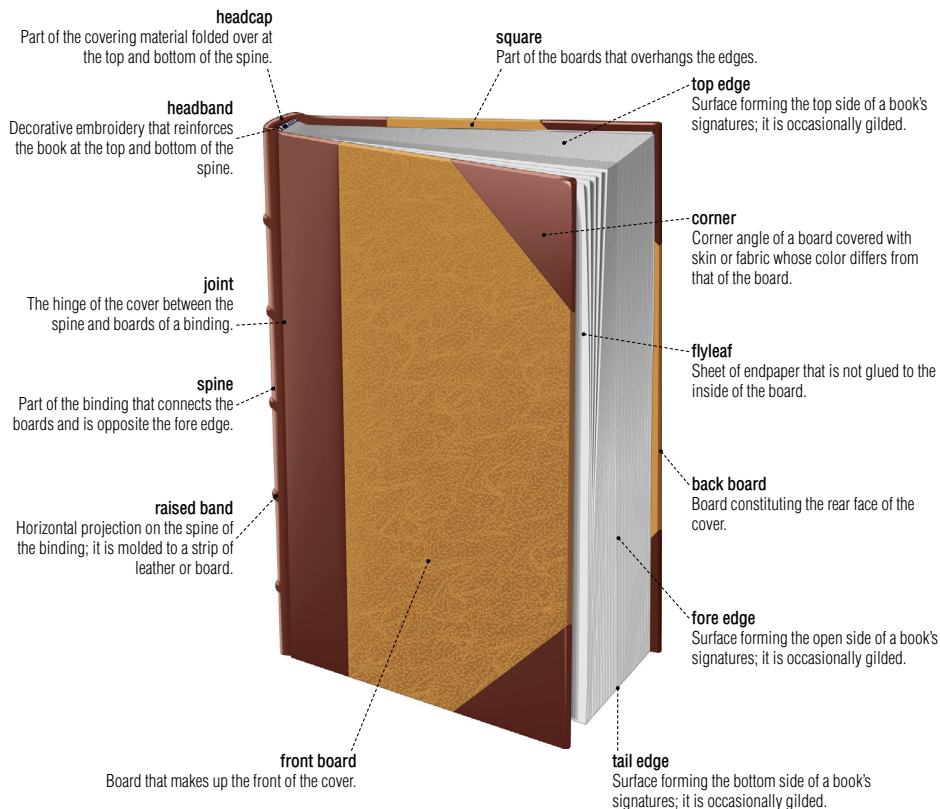
Process of applying a covering material (skin, fabric, paper) to the boards and spine of a book.

bookbinding leather
Animal leather (e.g., goat or calf) used in bookbinding to cover a book.



bound book

Book whose signatures are sewn together and bound inside a rigid cover made of leather, fabric or paper.



writing instruments

The first true writing instruments were made by the Sumerians in Mesopotamia nearly 5,000 years ago.



quill

Large feather with a hollow stalk (calamus) that is sharpened to a point and dipped in ink to write; it was used in the Middle Ages.



cane pen

Instrument that was used from antiquity through the Middle Ages to write on papyrus and parchment; it remains the traditional instrument of Arabic calligraphy.



stylus

Pointy metal instrument used by the ancient Greeks to etch wax tablets; the flattened end was used to erase etching.



lead pencil

Pencil made of lead with a decorative end; it was first used in the Middle Ages and was later replaced by the graphite lead pencil.



pencil

Writing instrument made up of a casing of soft wood around a graphite lead; it can be sharpened easily.



steel pen

Curved point mounted on a handle; it is dipped in an inkwell to write.



writing brush

Natural or synthetic bristles set into a handle and dipped in ink to write; it has been used for Chinese calligraphy for 4,000 years.



Roman metal pen

Metal writing instrument devised by the Romans in ancient times; it is the ancestor of the modern metal pen, which appeared in the 19th century.



marker

Bevel-tipped color felt pen of variable size.

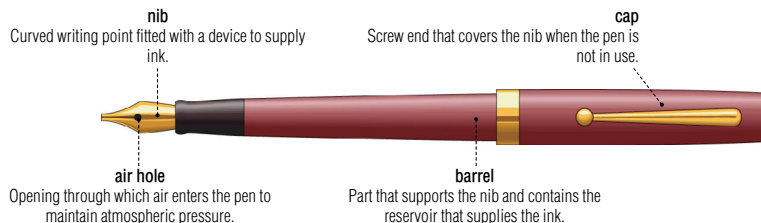


mechanical pencil

Instrument that is made up of a slender tube containing a fine piece of lead; pressing the thrust button moves the lead forward.

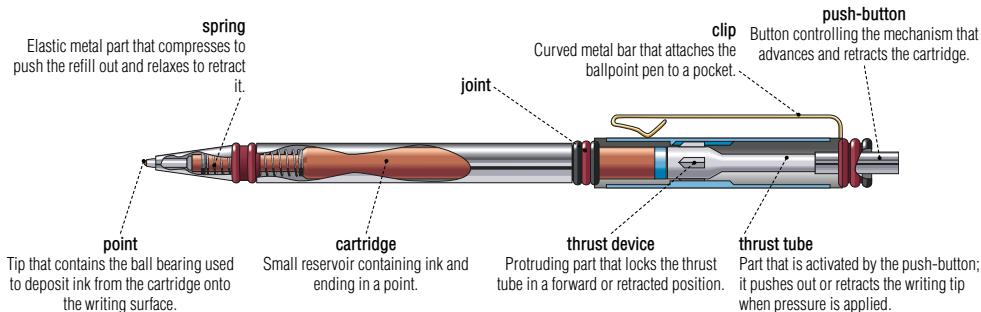
fountain pen

Instrument with a metal nib that is attached to a body containing an ink reservoir, usually in the form of a cartridge.



ballpoint pen

Instrument invented at the beginning of the 20th century; the writing tip holds a small rotating ball.



refill
Cartridge that is inserted into the body of a ballpoint pen to refill the ink.

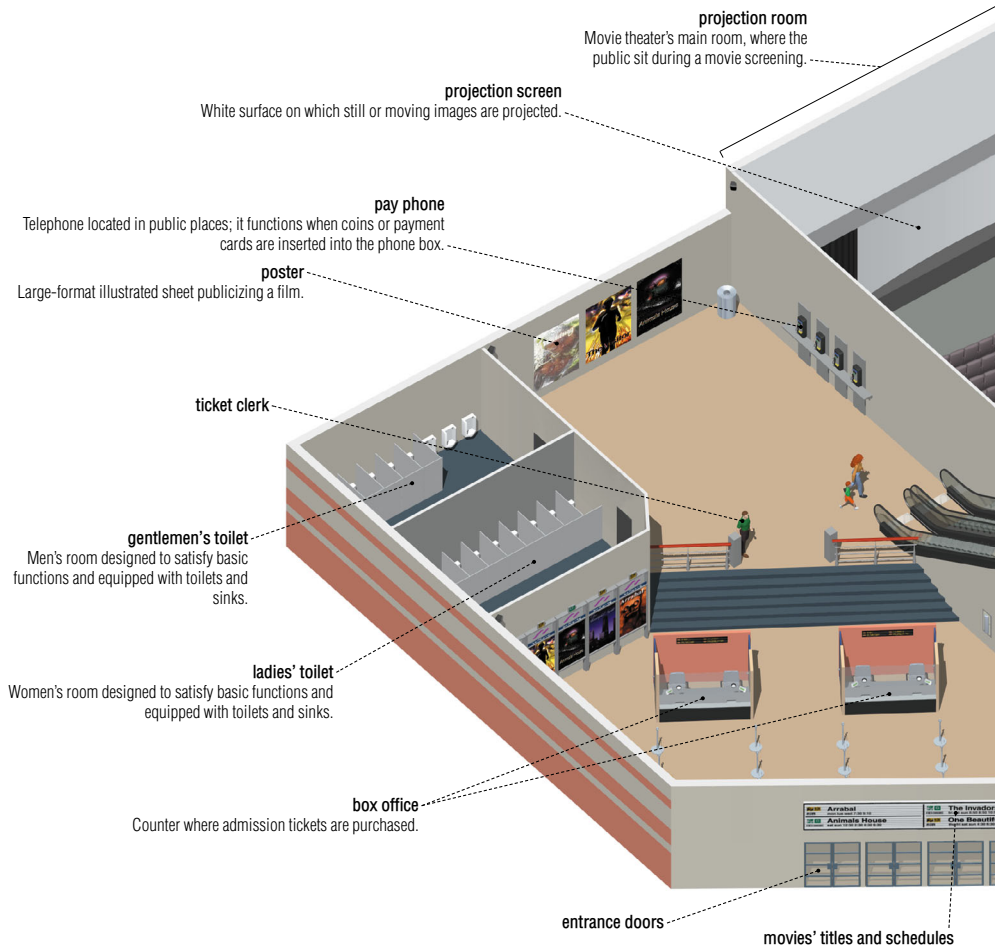


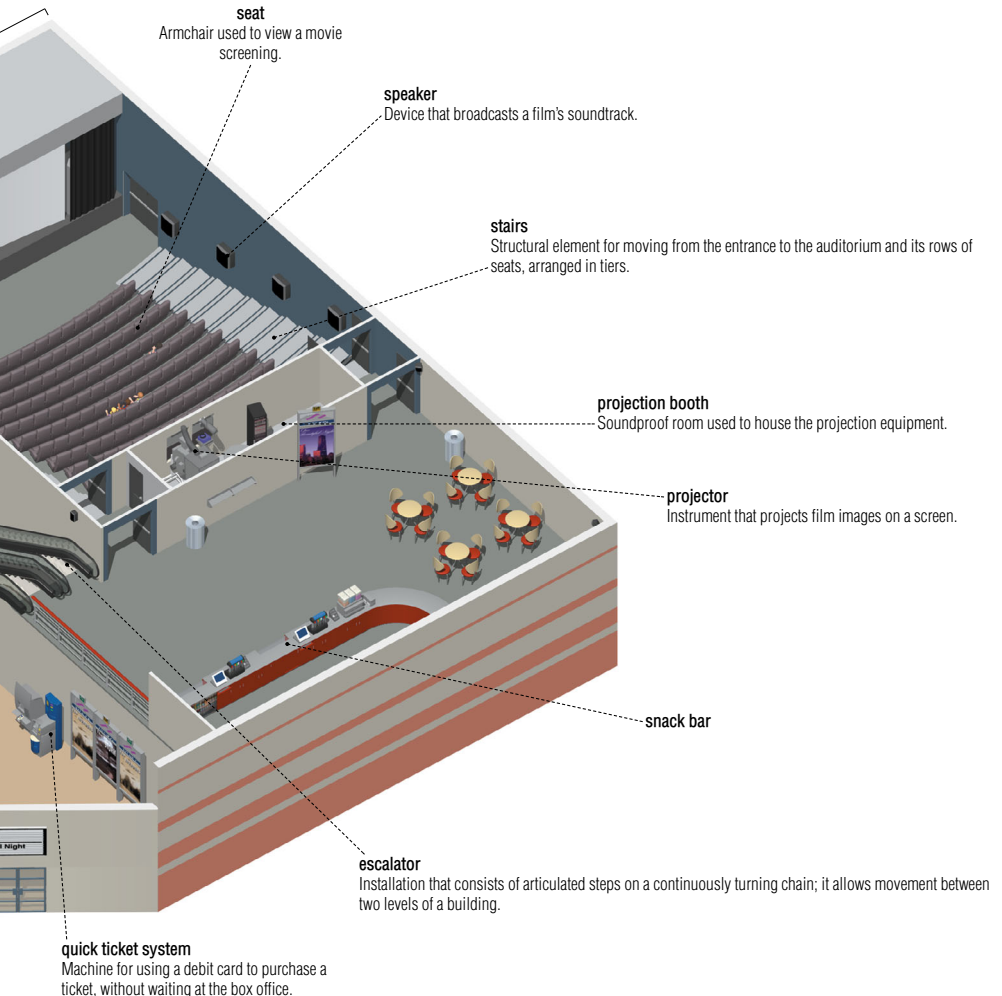
ball bearing
Small metal ball in the point of the pen; when turned, it deposits ink from the cartridge onto the writing surface.

ink
Black or colored liquid used for writing.

movie theater

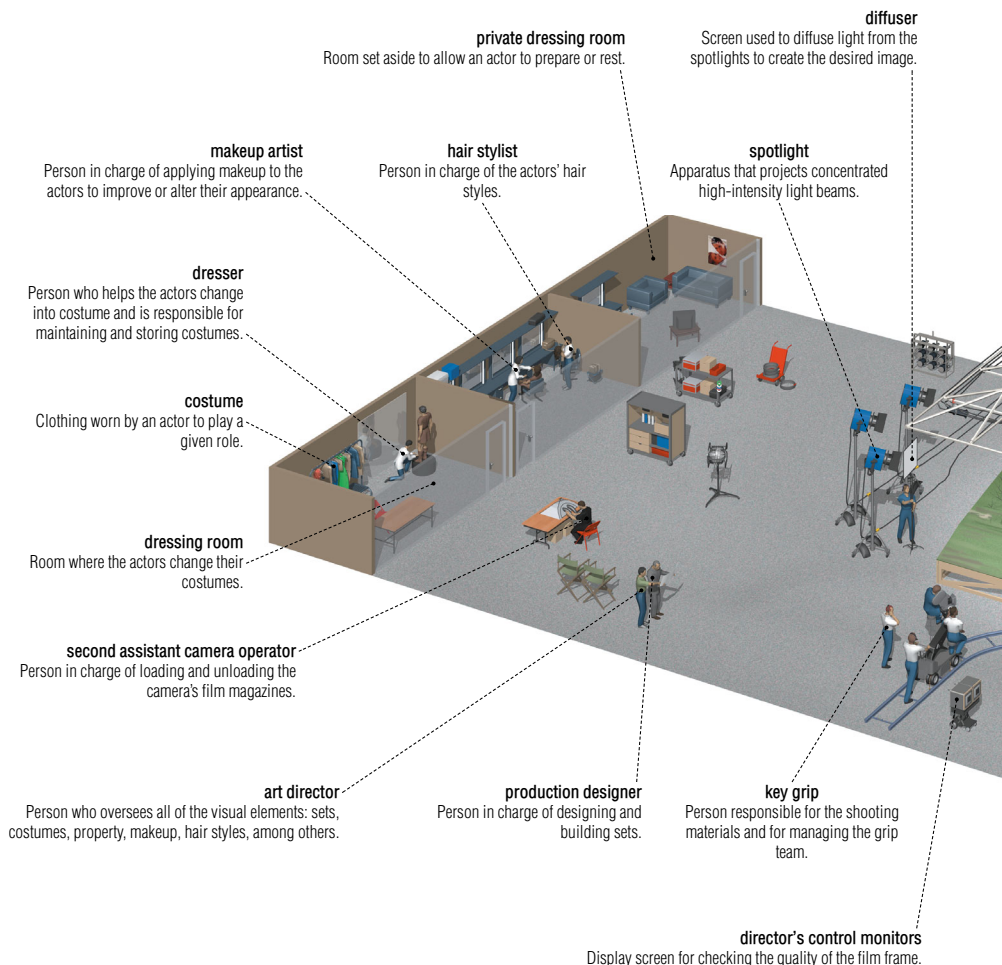
Establishment with auditoriums used for projecting films.

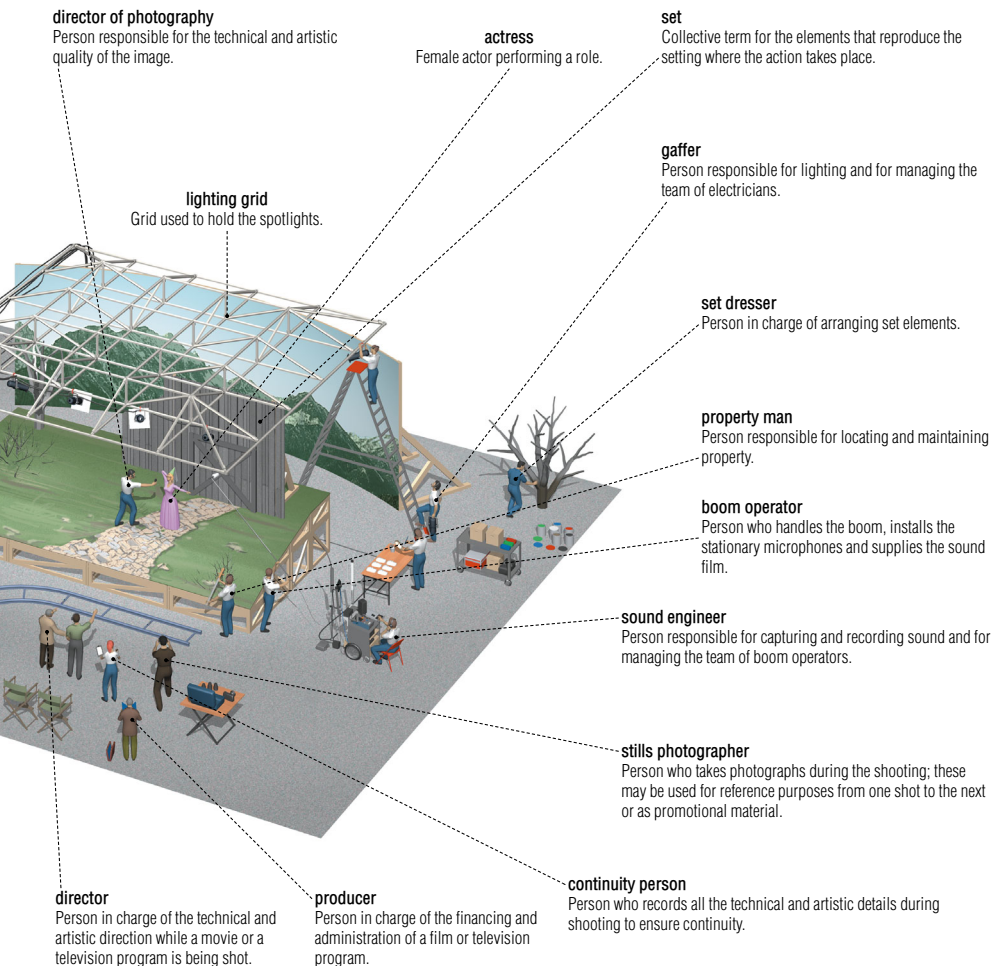




movie set

Sets, materials and personnel needed to shoot a movie or a television program.





movie set

dolly

Small vehicle on rails that carries the camera, the camera operator and the assistant.

first assistant camera operator

Person responsible for camera operation and maintenance, and for bringing the image into focus.

camera

Film shooting device that records movement so it can be reproduced by projection.

camera operator

Person responsible for operating the camera, defining the shooting frame and recording the images.

grip

Person in charge of transporting, installing and handling film equipment, especially moving the dolly along its tracks.

**dolly tracks**

Rails that guide the dolly when the camera is moving to follow the action.

clapper/the slate

Panel consisting of two small boards that are clapped together to signal the start of shooting.

time code

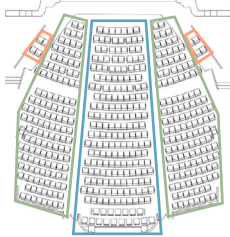
Device that indicates the hour, minute, second and number of the frame; it is used to mark the sequence for editing purposes.



Establishment built to present plays, shows, dance performances, concerts and so forth.

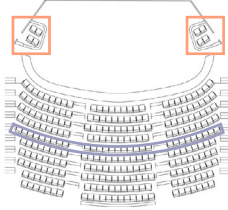
parterre

The first floor of the house.



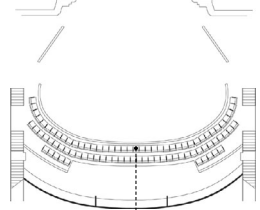
mezzanine

The floor above the parterre of the house.



balcony

Area of the house located above the mezzanine.



seat

Armchair used to watch a performance.



box

Small partitioned room that seats two or three people.



side



row

Series of seats the same distance from the stage.



center

stage

The area seen from the house where the artists perform.



lights

Row of projectors set up above the proscenium.

border

Horizontal strip of fabric used to hide the parts of the flies that are visible from the house.

prompt side

The left side of the stage, from the audience.

stage curtain

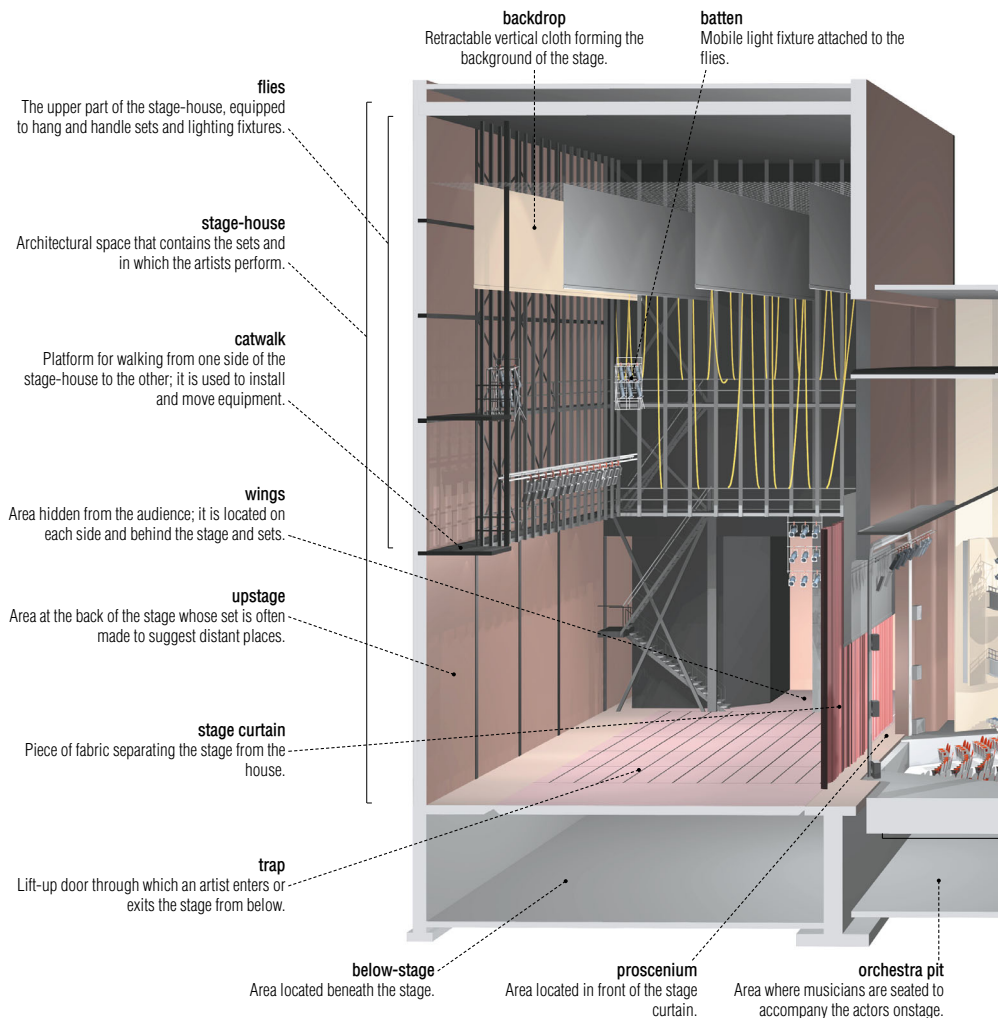
Piece of fabric separating the stage from the house.

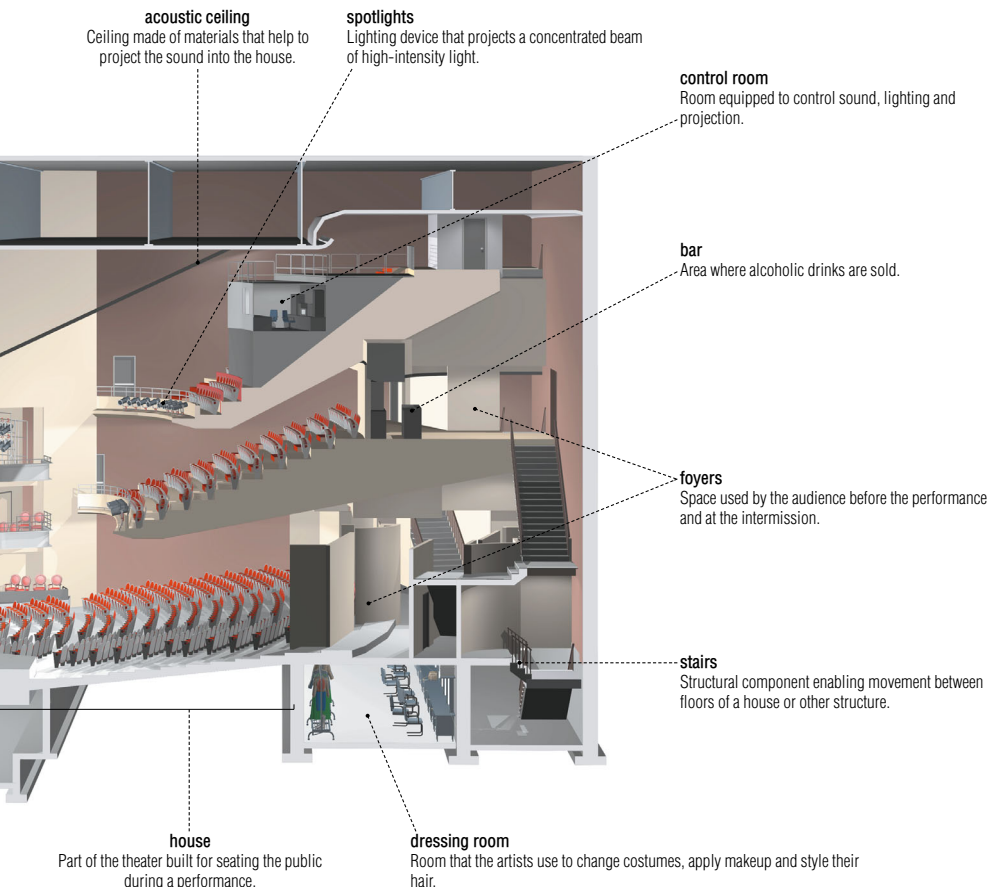
upstage

Area at the back of the stage whose set is often made to suggest distant places.

opposite prompt side

The right side of the stage, from the audience.





photography

Process that captures an image on a light-sensitive surface by admitting light through a shutter.

single-lens reflex (SLR) camera: front view

Still camera with an interchangeable lens that can be used for both viewing and shooting, hence the term "reflex".



film reflex camera: camera back

Reflex camera that captures an image on a light-sensitive media (film).

film rewind system

Manual or motorized device that winds a partially or totally exposed film back into its cartridge.

film guide roller

Rotating cylinder that directs the film from the cartridge toward the film guide rails.

viewfinder

Device for viewing the scene to be photographed, framing it and adjusting its clarity.

focal plane shutter

Opaque device that opens for a predetermined length of time based on the shutter speed chosen; it allows light to come in contact with the film.

neckstrap eyelet

Small ring that holds a strap to help carry the camera.

take-up spool

Cylinder for winding the exposed film.

film guide rail

Each of the flat metal rails on both sides of the focal plane shutter; the taut film travels along them.

film leader indicator

Indicator showing whether the film leader (end of the film extending outside the cartridge) is properly inserted into the take-up spool.

pressure plate

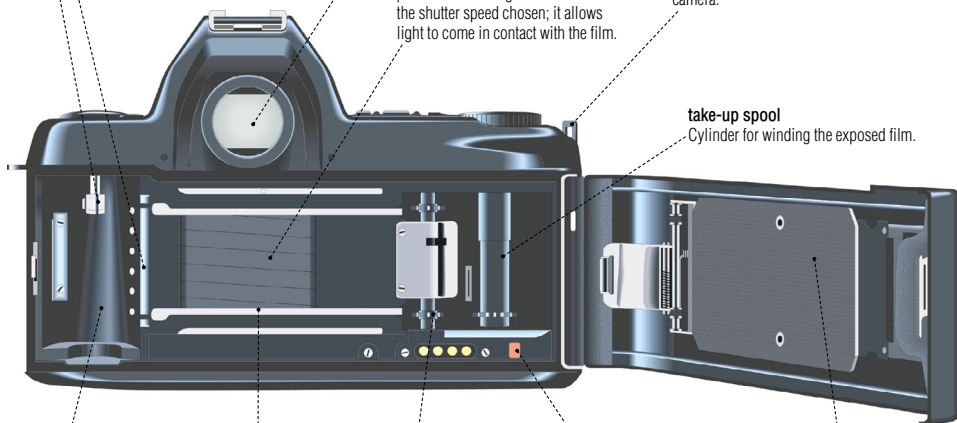
Spring plate that keeps the film flat as it passes behind the lens.

film cartridge chamber

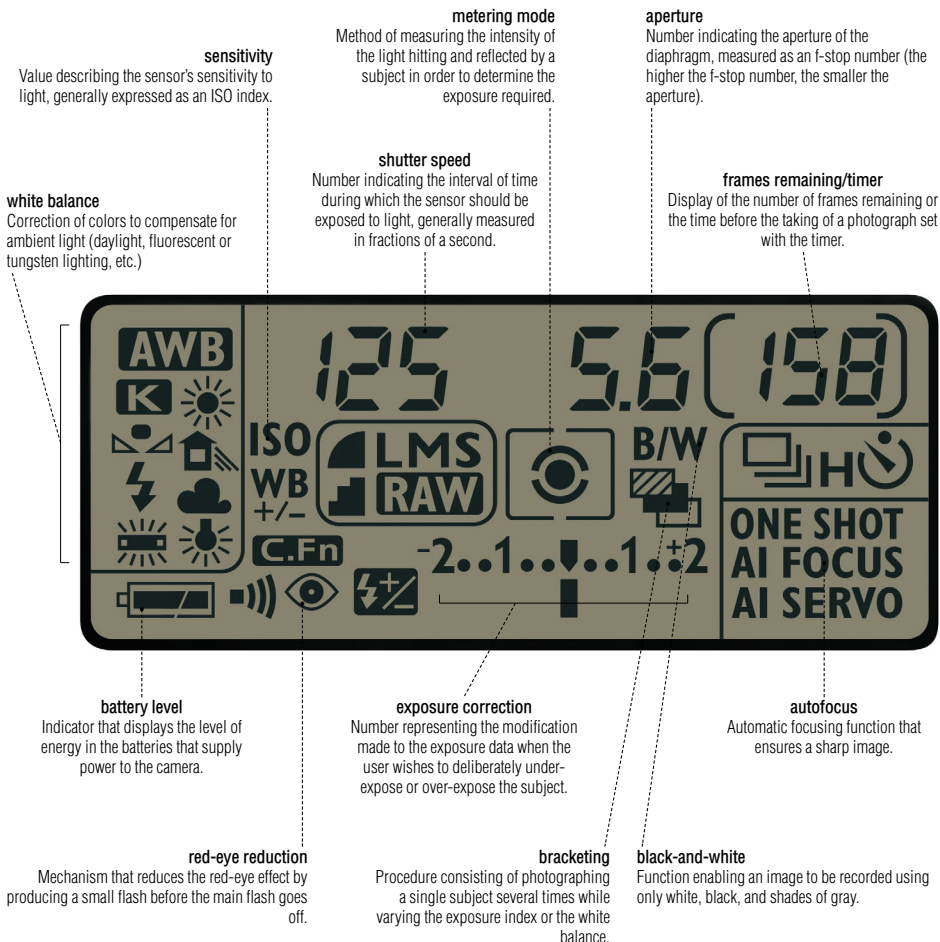
Compartment that holds a film cartridge.

film sprocket

Small serrated wheel that guides the film toward the take-up spool.



digital reflex camera: control panel



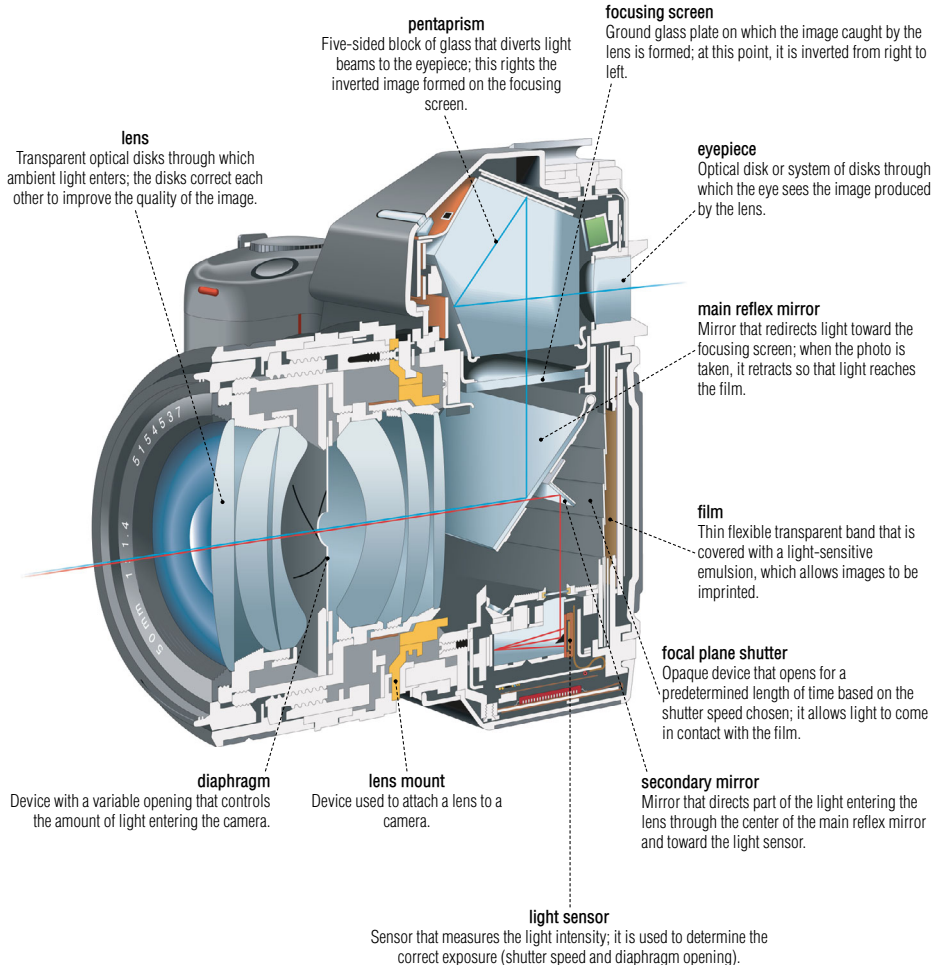
digital reflex camera: camera back

Reflex camera that contains a sensor and a microprocessor rather than film; they record and store images in digital form on a memory card.



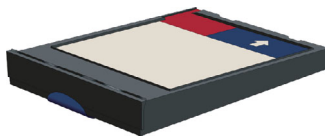
cross section of a film reflex camera

A slanted mirror allows the user to view and shoot at the same time; the mirror flips up when the shutter release button is pressed.

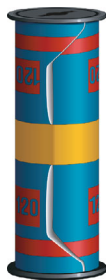


films

Thin, flexible, transparent media covered with light-sensitive materials that enable images to be imprinted in a film camera.

**film pack**

Small rigid box containing a certain number of sheet films, which are dispensed successively as the camera operates; they are used in Polaroid® cameras.

**roll film**

Band of film with a number of exposures; it is rolled on a spool and used in midsize cameras.

**cartridge film**

Small lightproof container that holds a roll of film with a number of exposures, which is loaded into a camera.

**sheet film**

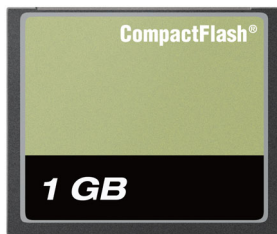
Semirigid film made to fit specific applications; it is usually loaded into a view camera.

memory cards

Rigid cards used as a storage medium to record photographs taken with a digital camera.

xD-Picture card

Very-small-format flash memory card, designed in 2002.

**compact flash card**

Rigid card used as a storage medium to record photos taken with digital cameras.

**Secure Digital card**

Small-format flash memory card that includes a copyright-protection mechanism. It was developed in 2000.

**Memory Stick**

Flash memory card in a rectangular-shape case. It was developed in 2000.

lenses

Lenses are characterized by their focal length (between the optical center and the film), aperture (ratio between the diameter of the lens and the focal length) and angle of view (width of the captured image).

zoom lens

Lens with a variable focal length so that the visual field can be changed without changing the lens.

**standard lens**

Lens that produces an image close to that seen by the human eye.

**focus setting ring**

Setting ring that sharpens the image of a subject.

distance scale

Scale that shows the distance between the lens and the subject on which it is focused.

lens aperture scale

Graduated scale that controls the diaphragm's opening; it is measured in f-stops and a high f-stop indicates a small opening.

depth-of-field scale

Scale that shows the zone of sharpest focus around the subject; this is a function of the diaphragm's opening and the distance between the lens and the subject.

macro lens

Lens designed mainly for close-up shots of small objects.

**wide-angle lens**

Lens with a short focal length that covers a larger visual field than a regular lens and provides significant depth of field.

**telephoto lens**

Lens with a long focal length that enlarges the image of a distant subject but reduces the visual field and the depth of field.

**fisheye lens**

Lens with a very short focal length that covers a visual field of at least a 180°; it creates circular images.

**semi-fisheye lens**

Lens with a short focal length that covers a wide visual field; it emphasizes the effect of perspective.

lens cap

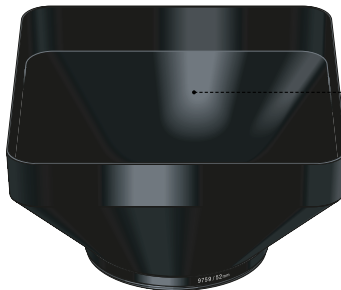
Part that covers and protects the lens when it is not in use.

**lens accessories**

All the parts that can be attached to a lens to change its focal length or alter the image projected on the film.

lens hood

Cone-shaped device that reduces the effect of intense ambient light to improve the image's contrast.

**color filter**

Colored glass used to alter the characteristics of the light reaching the film.

**close-up lens**

Optical disk that changes the focal length of the lens so that very near subjects can be photographed.

**polarizing filter**

Glass used to reduce reflections from nonmetallic surfaces such as water, glass and asphalt.

**objective lens**

Optical system made up of a set of lenses fixed on a mount; it allows a clear image to be produced on film.

**tele-converter**

Component inserted between the camera and the lens to increase its focal length; this enlarges the image of a distant subject.



still cameras

Cameras whose principal components are a lightproof chamber and an optical system, which causes an image to be imprinted on a light-sensitive surface.

**compact camera**

Small, easy-to-use camera.

**disposable camera**

Small lightweight easy-to-use camera containing a film; it is designed to be used only once.

**ultracompact camera**

Very small camera, usually completely automatic.

**single-lens reflex (SLR) camera**

Camera whose interchangeable lens is used to both view and shoot through a slanted mirror that flips up (reflex).

**underwater camera**

Camera composed of a watertight pressure-resistant body; it is used mainly for underwater photography.


Polaroid® camera

Camera that develops photos instantly. After a photo is taken, the exposed film is ejected from the camera and develops automatically in a few minutes.


medium format SLR (6 x 6)

Midsized camera with interchangeable lenses; it produces 6 cm x 6 cm images on a roll of film.


view camera

Large camera composed of two telescopic blocks connected to an expandable bellows, which allows the perspective and focus to be checked and adjusted as needed.


twin-lens reflex camera

Camera whose upper lens uses a mirror to view while its lower lens is used to shoot.

photographic accessories

Add-on devices that improve or change the way a camera operates.

**button cell**

Device that converts chemical energy into electrical energy.

**battery pack**

Device that stores chemical energy during charging and converts it into electrical energy.

**battery**

Device that converts chemical energy into electrical energy to supply power to another device.

**waterproof case**

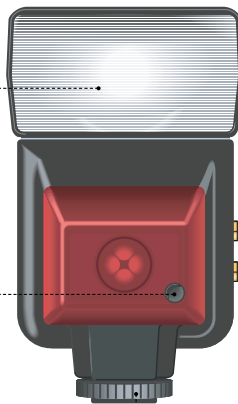
Rigid container designed to protect a camera from water or bad weather. It is used, among other things, for underwater photography.

**cable shutter release**

Flexible cable with a trigger that activates the shutter at close range thereby reducing the possibility of moving the camera.

electronic flash

Device with a lamp that produces a brief and intense flash of light; it is used to compensate for inadequate lighting.

**flashtube**

Part that concentrates and channels light from the lamp toward the subject to be photographed.

photoelectric cell

Detector that measures the intensity of ambient light and controls the amount of light emitted by the flash.

mounting foot

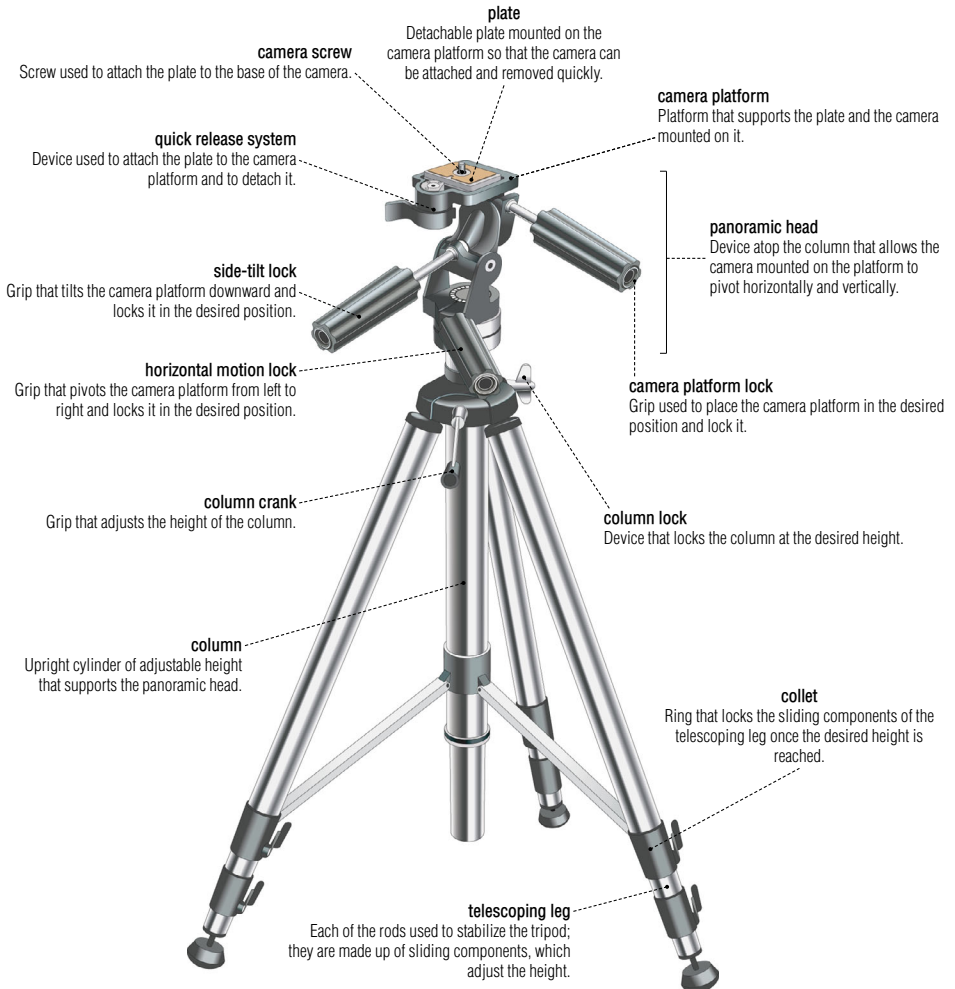
Device used to mount the flash onto the accessory shoe.

**camera bag**

Bag with compartments designed to hold and protect a camera and its accessories.

tripod

Adjustable support to which a camera is attached to keep it stable, level and in focus.



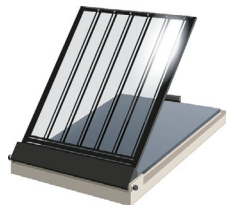
photography

darkroom equipment

Material required to process film and to print photographs in a darkened room.

**easel**

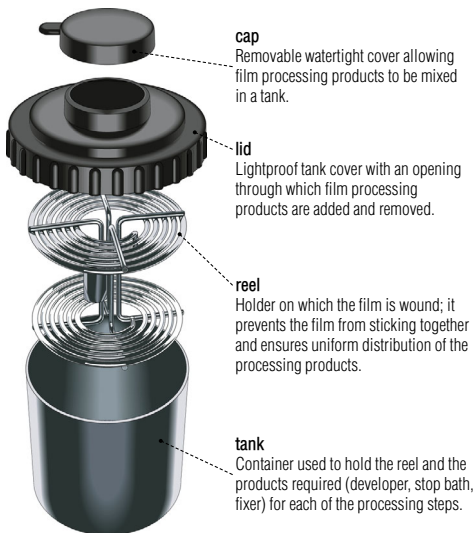
Frame used to hold paper flat under an enlarger; its movable edges make allowance for white margins on the proof.

**contact printer**

Frame in which negatives come in contact with photographic paper and are exposed to light to print an image of the same size.

developing tank

Lightproof container used during the various stages of processing an exposed film to obtain a negative.

**cap**

Removable watertight cover allowing film processing products to be mixed in a tank.

lid

Lightproof tank cover with an opening through which film processing products are added and removed.

reel

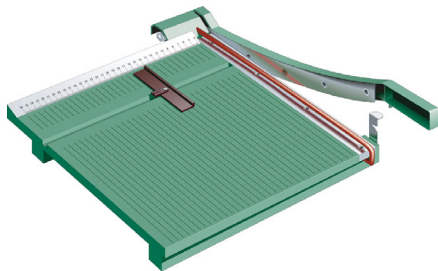
Holder on which the film is wound; it prevents the film from sticking together and ensures uniform distribution of the processing products.

tank

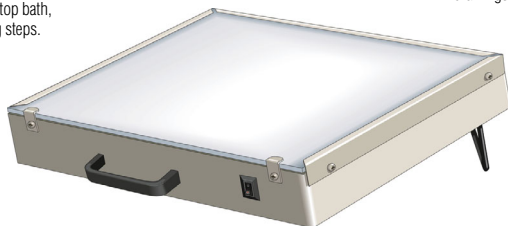
Container used to hold the reel and the products required (developer, stop bath, fixer) for each of the processing steps.

paper cutter

Piece of equipment used to make square cuts in paper, cardboard, transparencies, etc.

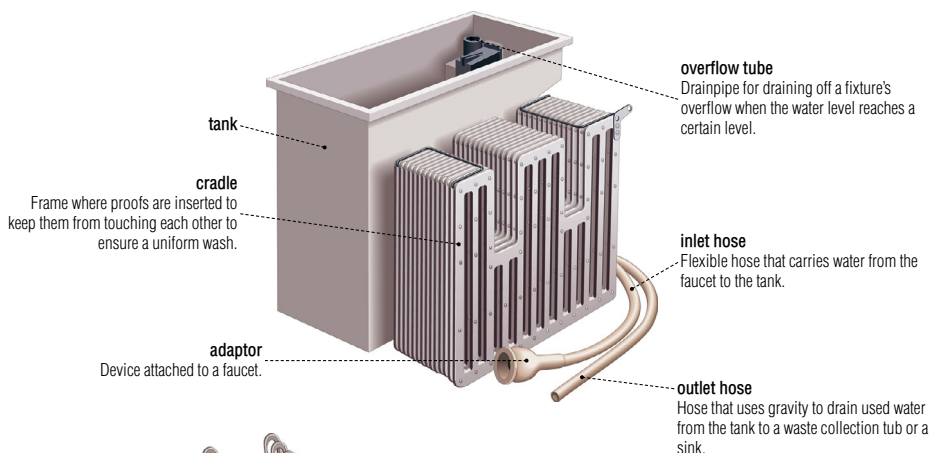
**lightbox**

Screen that is illuminated from behind and used to examine items such as negatives, slides, transparencies and drawings.



print washer

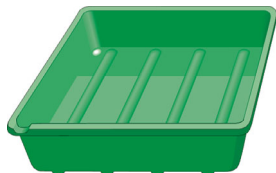
Device that uses water to eliminate residual chemicals accumulated during the processing of photographic paper.

**print drying rack**

Frame that holds prints once they have passed through the washer so that the water evaporates.

developing baths

Trays used for the various steps in processing exposed photographic paper to obtain a proof in black and white.

**developer bath**

Tray containing a chemical that acts on light-exposed photographic paper to reveal an image.

**stop bath**

Tray containing a chemical that stops the action of the developer.

**fixing bath**

Tray containing a chemical that fixes the revealed image by making the photographic paper insensitive to light.

traditional musical instruments

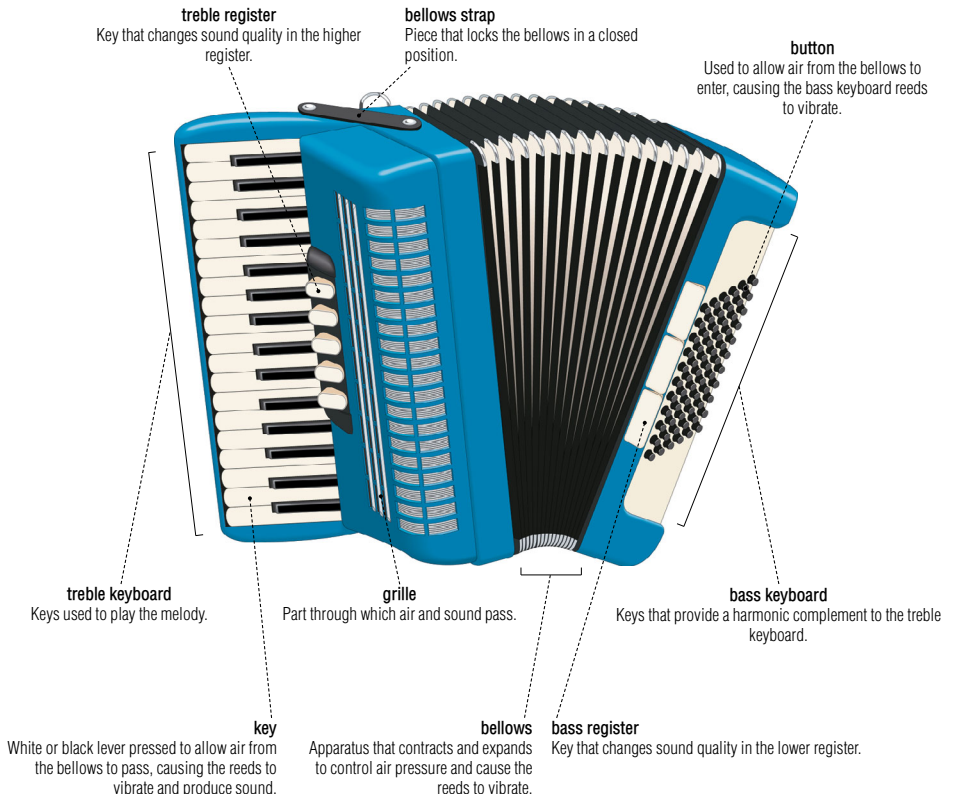
Collective term for the instruments, current or ancient, that characterize a culture, era or style of music.

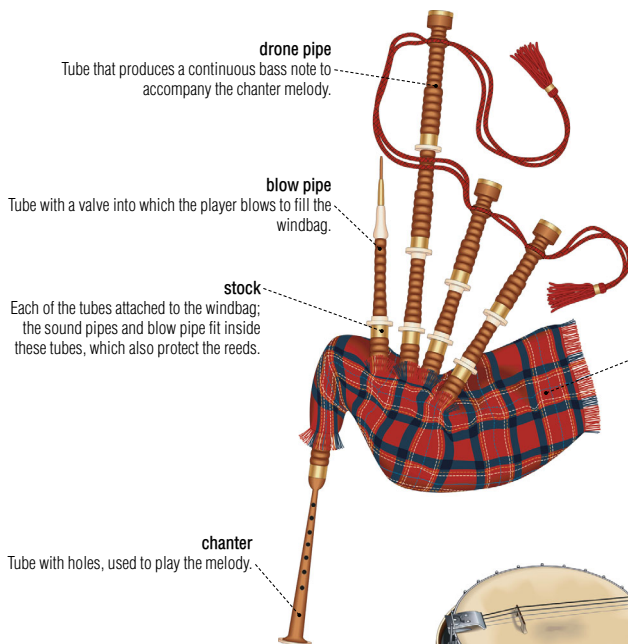
accordion

Wind instrument composed of keyboards and a manual bellows used to cause the reeds to vibrate and produce sound.

harmonica

Instrument composed of small tubes with free reeds recessed in a frame, which the player causes to vibrate by exhaling and inhaling.

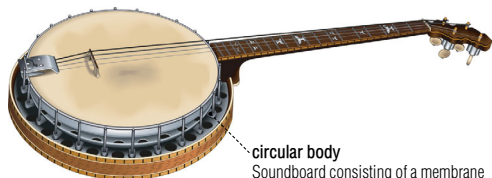


**bagpipes**

Wind instrument associated with Scottish culture; it is composed of a bellows in the shape of a windbag and several sound pipes.

windbag

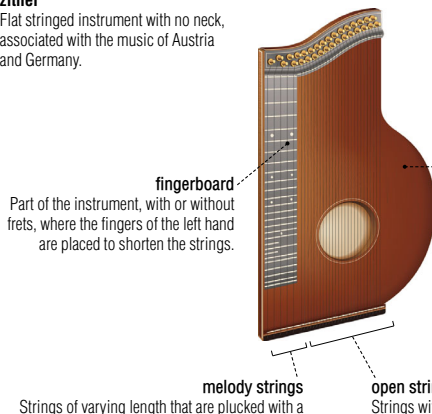
Air chamber that feeds the chanter and drone pipes by means of compression.

**banjo**

Afro-American stringed instrument that was extremely popular at the dawn of the jazz era.

zither

Flat stringed instrument with no neck, associated with the music of Austria and Germany.

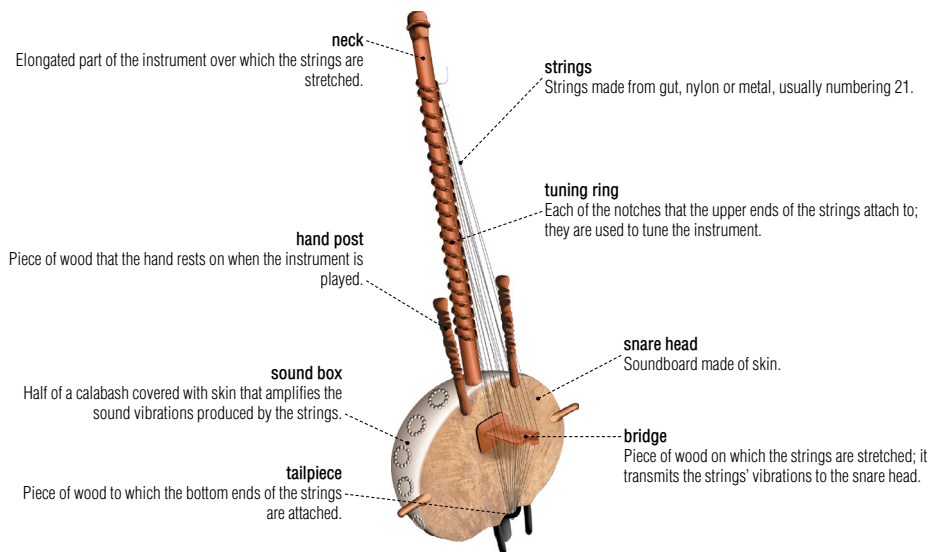
**soundboard**

The hollow part of the instrument; it amplifies the sound vibrations produced by the strings.

traditional musical instruments

kora

Plucked string instrument used in Africa for celebrations and rituals.

**mandolin**

Plucked instrument with paired strings and a pear-shaped body, originally from Italy.

plectrum

Accessory used to cause the strings to vibrate on certain instruments, also called a pick.

**pear-shaped body**

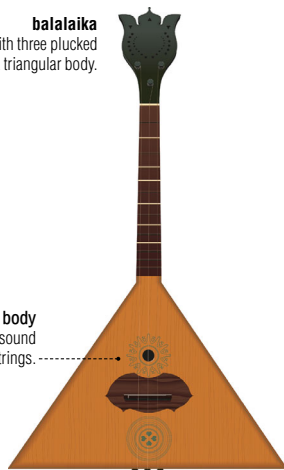
Soundboard in the shape of a half pear; it amplifies the sound vibrations produced by the strings.

**balalaika**

Russian instrument with three plucked strings and a triangular body.

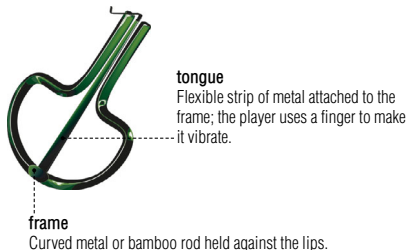
triangular body

Soundboard that amplifies the sound vibrations produced by the strings.

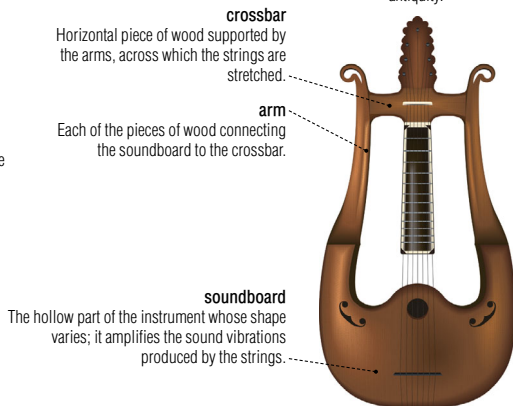


Jew's harp

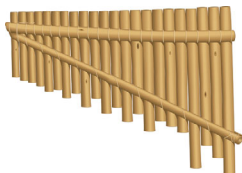
Instrument composed of a tongue fitted to a frame; the instrument is held against the lips and the mouth is used to alter or amplify the sound vibrations.

**lyre**

Plucked string instrument used in antiquity.



panpipe
South American instrument consisting of tubes of unequal length, each of which produces a single note.

**talking drum**

Drum from West Africa that is held in the armpit when played; its hourglass shape allows the tone to be adjusted by applying arm pressure to the tension ropes.



drumstick
Curved stick used to strike the skin of the talking drum.

djembe

Large chalice-shaped drum used in Africa for celebrations and rituals.

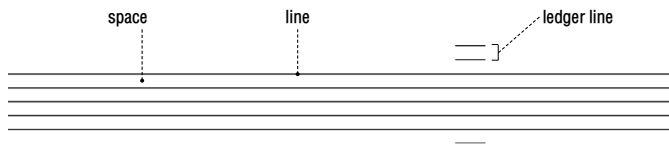


musical notation

Collective term for the signs on a staff that represent sounds and silences as well as value, pitch, measure, rhythm and so forth.

staff

A series of five lines and four spaces on which music is written and read: the lower notes are written on the bottom, the higher notes on the top; the duration of the notes is read from left to right.



clefs

Signs placed at the beginning of the staff and named after the note they refer to.



G clef

Key indicating that the second line of the staff corresponds to the note G; it is used to write notes in the middle and treble registers.

F clef

Key indicating that the fourth line of the staff corresponds to the note F; it is used to write notes in the middle and bass registers.

C clef

Rarely used clef indicating that the line chosen (first, third or fourth) corresponds to the note C; its use is more specialized.

time signatures

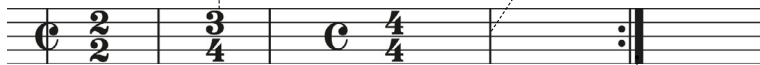
Section of the staff that indicates the meter of a composition, represented by a symbol in the form of a fraction or a letter, a barred C (2/2) or a C (4/4).

three-four time

The top number indicates that there are three beats per measure, the bottom number indicates that each beat is worth a quarter note.

bar line

Vertical line that crosses the staff lines to indicate a change in time signature.



two-two time

The top number indicates that there are two beats per measure, the bottom number indicates that each beat is worth a half note.

four-four time

The top number indicates that there are four beats per measure, the bottom number indicates that each beat is worth a quarter note.

repeat mark

Sign that indicates that a section or passage is to be played again.

intervals

Difference in pitch between two successive notes (melodic interval) or simultaneous notes (harmonic interval).

unison
Notes of the same pitch, or one or more octaves apart, produced simultaneously by several voices or instruments.

second
Interval of two tones (e.g., from C to D).

third
Interval of three tones (e.g., from C to E).

fourth
Interval of four tones (e.g., from C to F).

fifth
Interval of five tones (e.g., from C to G).

sixth
Interval of six tones (e.g., from C to A).

seventh
Interval of seven tones (e.g., from C to B).

octave
Interval of eight tones (e.g., from C to C).

scale

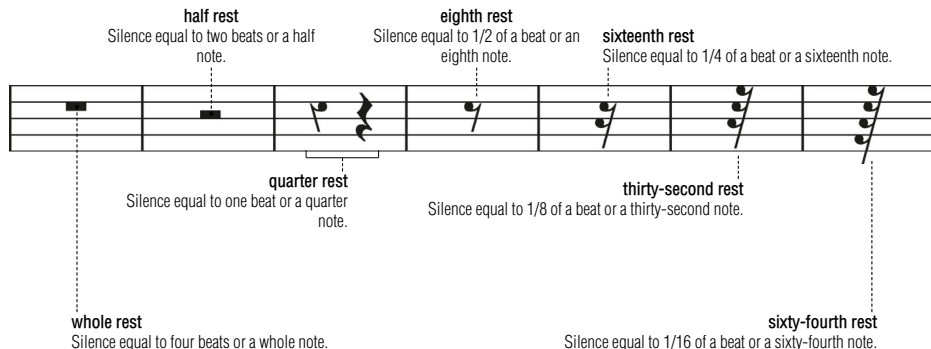
The diatonic scale consists of eight notes, including two semitones between E and F and between B and C. The chromatic scale is composed of 13 notes, all semitones.

C D E F G A B C

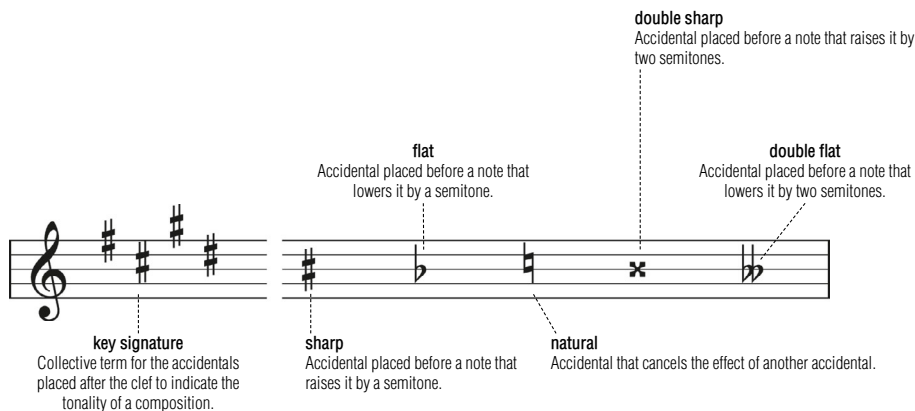
musical notation

rest symbols

Symbol that marks an interruption of sound; the figure indicates duration and has the same value as the accompanying note.

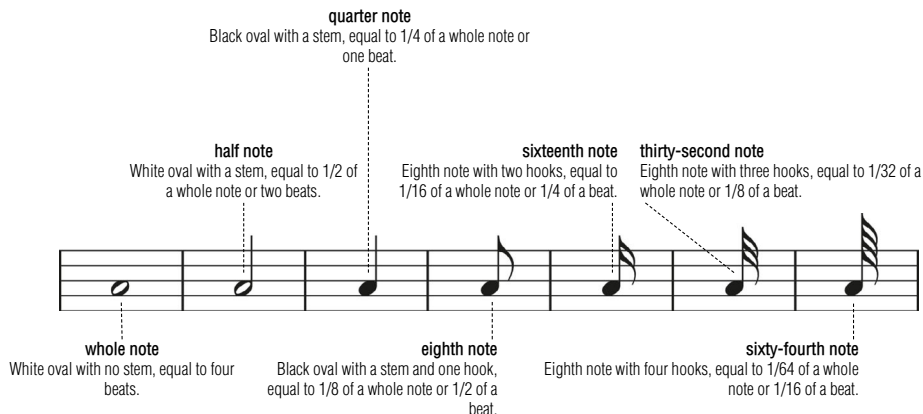
**accidentals**

Signs used to change the pitch of a note.



note symbols

Measure of a note, determined by its form; the whole note represents the basic unit of time.

**other signs**

Signs that indicate how a note or series of notes should be played.



Three or more notes played simultaneously.

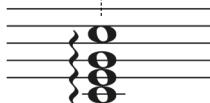


Curved line indicating that the first note is prolonged by the value of the note or notes following it.

accent mark
Sign indicating that a note should be played louder.



arpeggio
A chord whose notes are played in rapid succession, starting with the lowest.



pause
Sign indicating that the note can be prolonged for as long as desired.

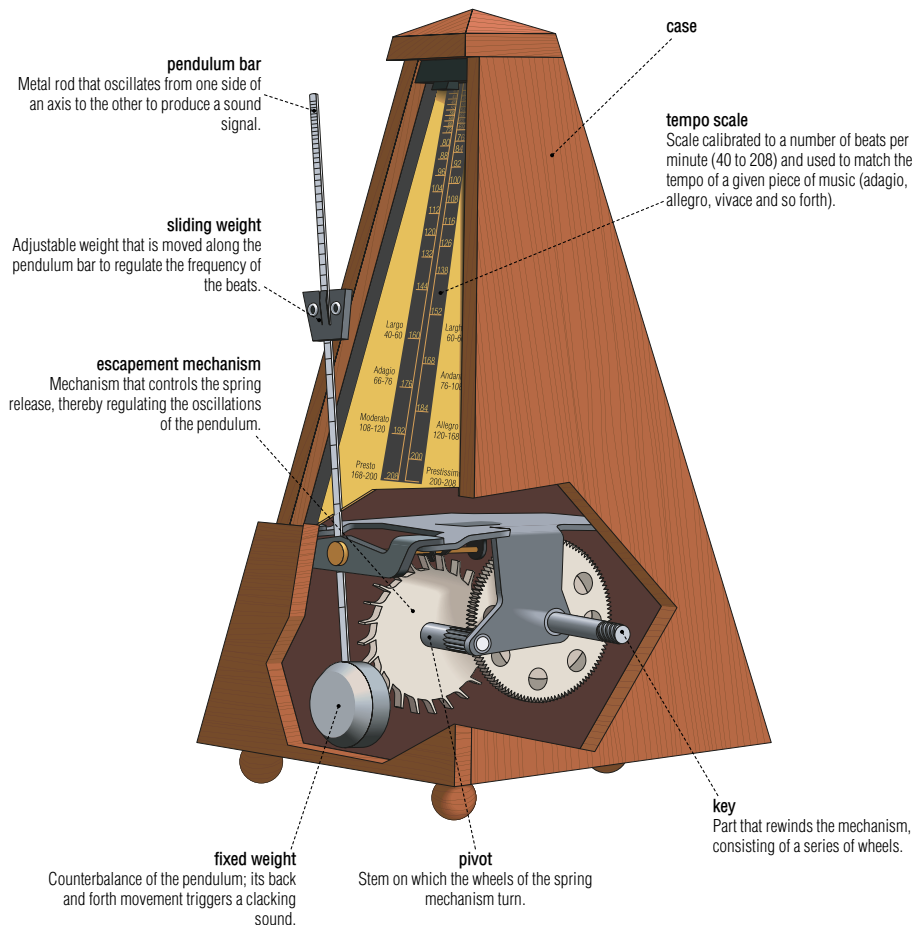


musical accessories

Instruments used by musicians to measure the tempo of a composition, tune their instruments and hold their music.

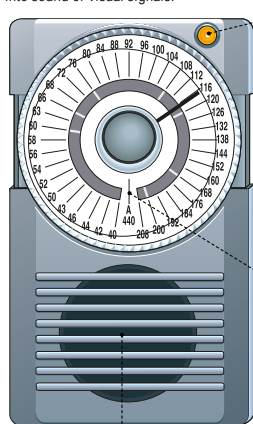
metronome

Spring-activated pendular instrument whose beats can be synchronized with the tempo of a piece of music while practicing.



quartz metronome

Metronome that translates the electric signal produced by a piece of quartz into sound or visual signals.

**light signal**

Part that translates the electronic beats of the metronome into flashing light.

standard A

Reference note established as the international standard; its frequency is 440 Hz (440 vibrations per second).

sound signal

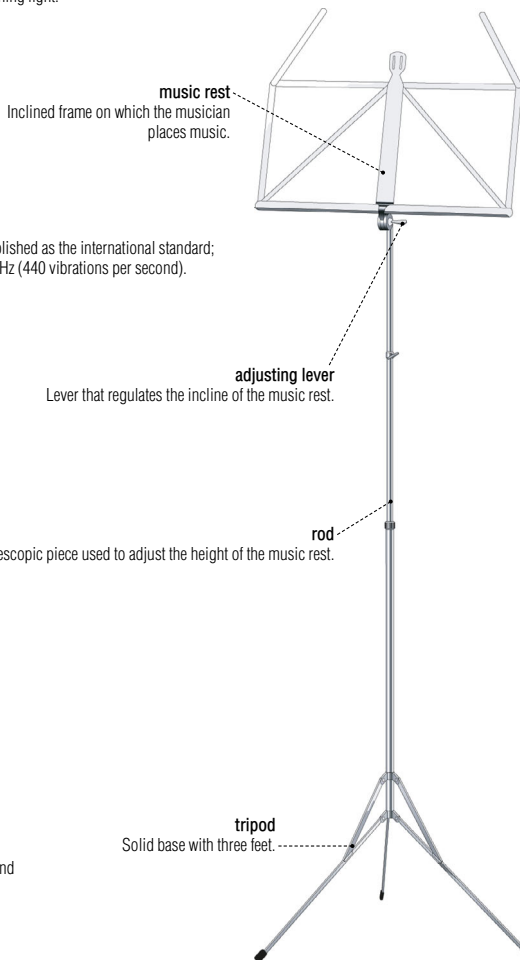
Device that translates the metronome's electric signal into beeps; its volume can be controlled.

**tuning fork**

Metal instrument used to tune voices and instruments; by convention, its two vibrating prongs emit an A note.

music stand

Device with an inclined frame where the musician places music so that it can be read comfortably.

**music rest**

Inclined frame on which the musician places music.

adjusting lever

Lever that regulates the incline of the music rest.

rod

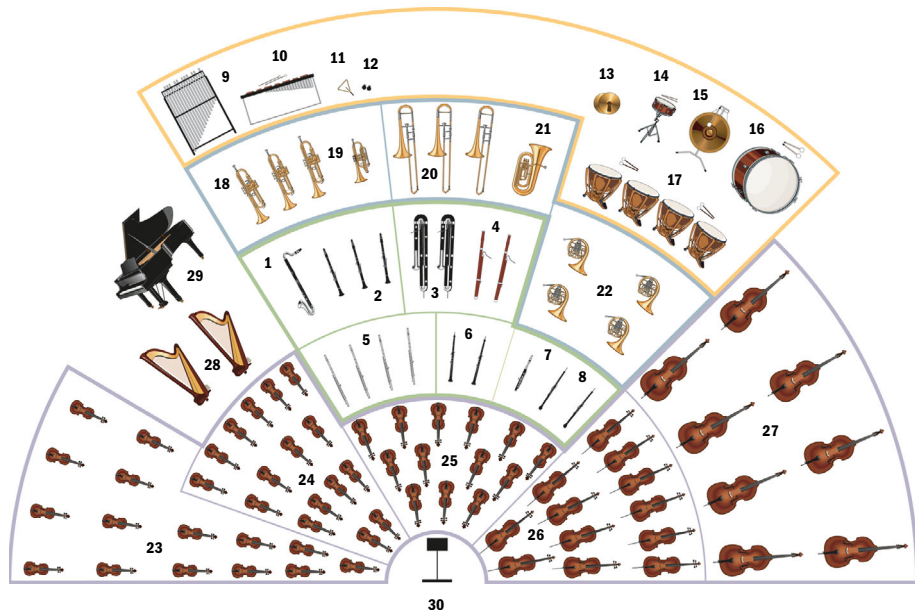
Telescopic piece used to adjust the height of the music rest.

tripod

Solid base with three feet.

symphony orchestra

Group composed of numerous musicians under the direction of a conductor; it includes various categories of instruments, depending on the work to be performed.



woodwind family

Group of wind instruments originally made from wood.

bass clarinet

- 1 Clarinet with a curved tube; its range is one octave lower than the ordinary clarinet.

clarinets

- 2 Single-reed instruments whose cylindrical tube contains holes (some closed by keys) and ends in a flared bell.

contrabassoons

- 3 Double-reed wind instruments consisting of several tubes; their range is one octave lower than the bassoon.

bassoons

- 4 Double-reed instruments consisting of a curved conical wooden tube; the double-reed is inserted into a curved mouthpiece.

flutes

- 5 Instruments with a side mouthpiece and a tube containing holes, some of which are closed by keys.

oboes

- 6 Double-reed instruments consisting of a conical tube with holes (some closed by keys) and a slightly flared bell.

piccolo

- 7 Small transverse flute whose range is an octave higher than the regular transverse flute.

English horns

- 8 Alto oboes with a pear-shaped bell.

percussion instruments

Group of instruments that are struck directly with the hands or with sticks, mallets, etc. to produce a sound.

tubular bells

9 Series of metal tubes arranged vertically in order of size; small hammers are used to strike the tops of the tubes.

xylophone

10 Instrument consisting of wooden bars placed on top of resonators arranged in chromatic order in two rows; the bars are struck with mallets.

triangle

11 Instrument composed of a metal bar bent to form a triangle open at one end; the triangle is struck with a metal rod.

castanets

12 Instrument composed of two shell-shaped pieces of wood held in one hand and struck together using the fingers.

cymbals

13 Instrument consisting of two metal disks that are struck together.

snare drum

14 Flat drum consisting of two membranes; stretched across the lower head are snares that produce a rattling sound.

gong

15 Instrument consisting of a large metal disk with a raised central portion that is struck using a mallet.

bass drum

16 Large drum set on a vertical frame and struck using a pedal-controlled wooden mallet.

timpani

17 Instruments consisting of a parabolic copper basin covered with a stretched batter head that is struck with a mallet.

brass family

Group of wind instruments made from metal and played with cup-shaped mouthpieces.

trumpets

18 Valved instruments consisting of a curved cylindrical tube and a flared bell.

cornet

19 Valved instrument consisting of a curved conical tube and a flared bell.

trombones

20 Instruments consisting of a curved tube with a slide that is lengthened to produce notes varying in pitch by semitones.

tuba

21 Valved instrument whose tonal range is the lowest in the brass family; it consists of a coiled conical tube and an upturned bell.

French horns

22 Valved instruments consisting of a coiled conical tube and a flared bell.

violin family

Group of stringed instruments played with a bow.

first violins

23 The violins that play the melody.

second violins

24 The violins that support the first violins.

violas

25 Four-stringed instruments similar to a violin but played a fifth lower.

cellos

26 Four-stringed instruments placed between the legs when played; they are about twice the size of a violin and their range is one octave lower than the viola.

double basses

27 Four- or five-stringed instruments played upright; the largest of the violin family, they also have the lowest range.

harps

28 Plucked stringed instruments consisting of strings of unequal length attached to a triangular frame.

piano

29 Piano whose mechanism is horizontal, allowing the pianist to better control the sound; it varies in size from 8 to 9 ft.

conductor's podium

30 Small dais that the conductor stands on to direct the musicians as they play.

examples of instrumental groups

Instrumental groups: groups of two or more instruments and musicians; a group's composition depends on the work being played.

duo

Musical work composed for two instruments.



trio

Musical work composed for three instruments.



quartet

Musical work composed for four instruments; the most common, the string quartet, features two violins, a viola and a cello.

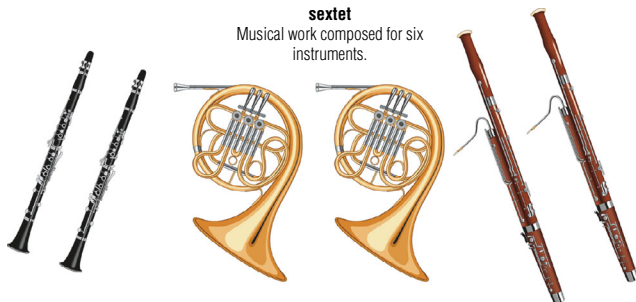


quintet

Musical work composed for five instruments.

**sextet**

Musical work composed for six instruments.

**jazz band**

Group composed of an indeterminate number of instruments playing an Afro-American style of music created in the early 20th century.

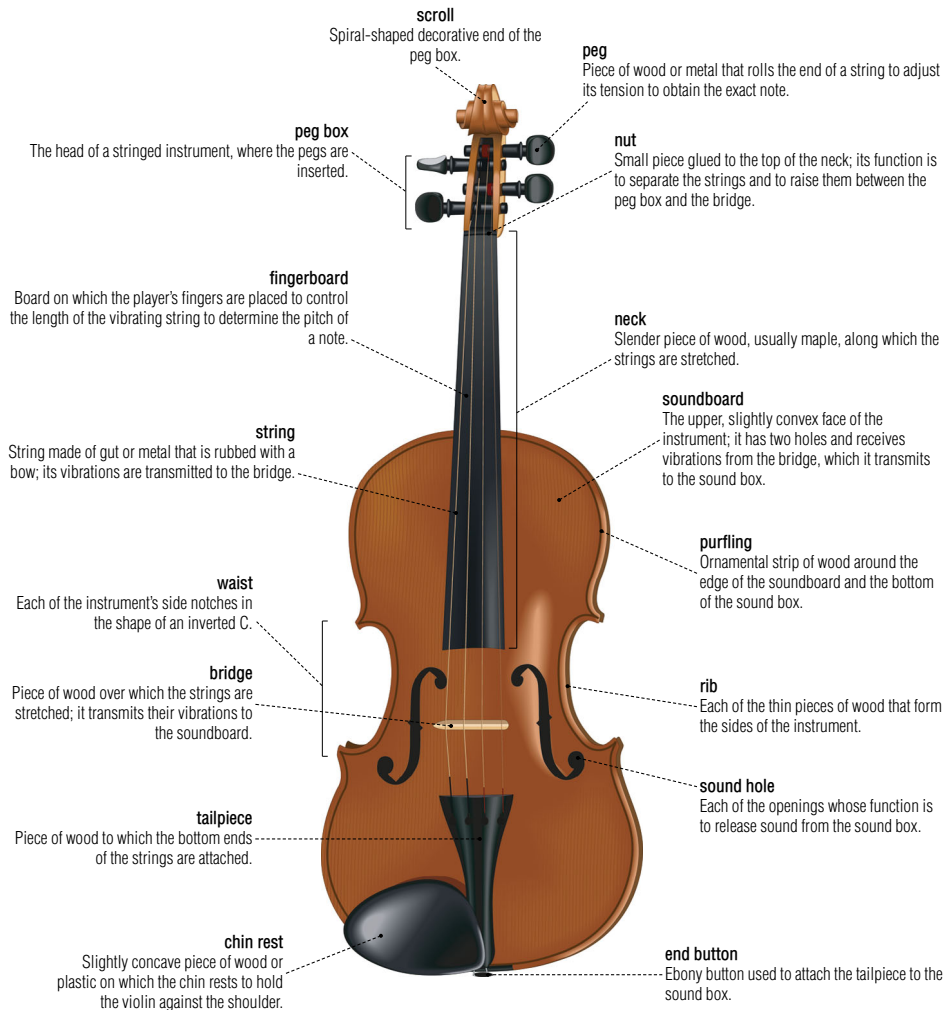


stringed instruments

Instruments whose sound, amplified by a sound box, is produced by the vibration of plucked or bowed strings stretched along a neck.

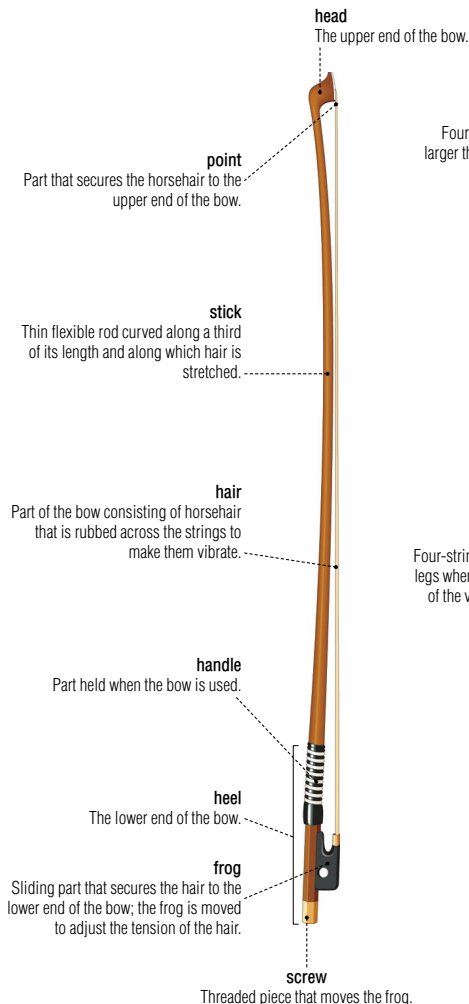
violin

Four-stringed instrument that the musician plays with a bow and holds between the shoulder and the chin.



bow

A wooden stick with horsehair stretched from end to end; by means of friction, it makes the strings of an instrument vibrate.

**violin family**

Group of stringed instruments played with a bow.

viola

Four-stringed instrument slightly larger than the violin; its range is a fifth lower than the violin.

**violin**

Four-stringed instrument that the musician plays with a bow and holds between the shoulder and the chin.

**double bass**

Four- or five-stringed instrument, played upright; the largest member of the violin family, it also has the lowest range.

**cello**

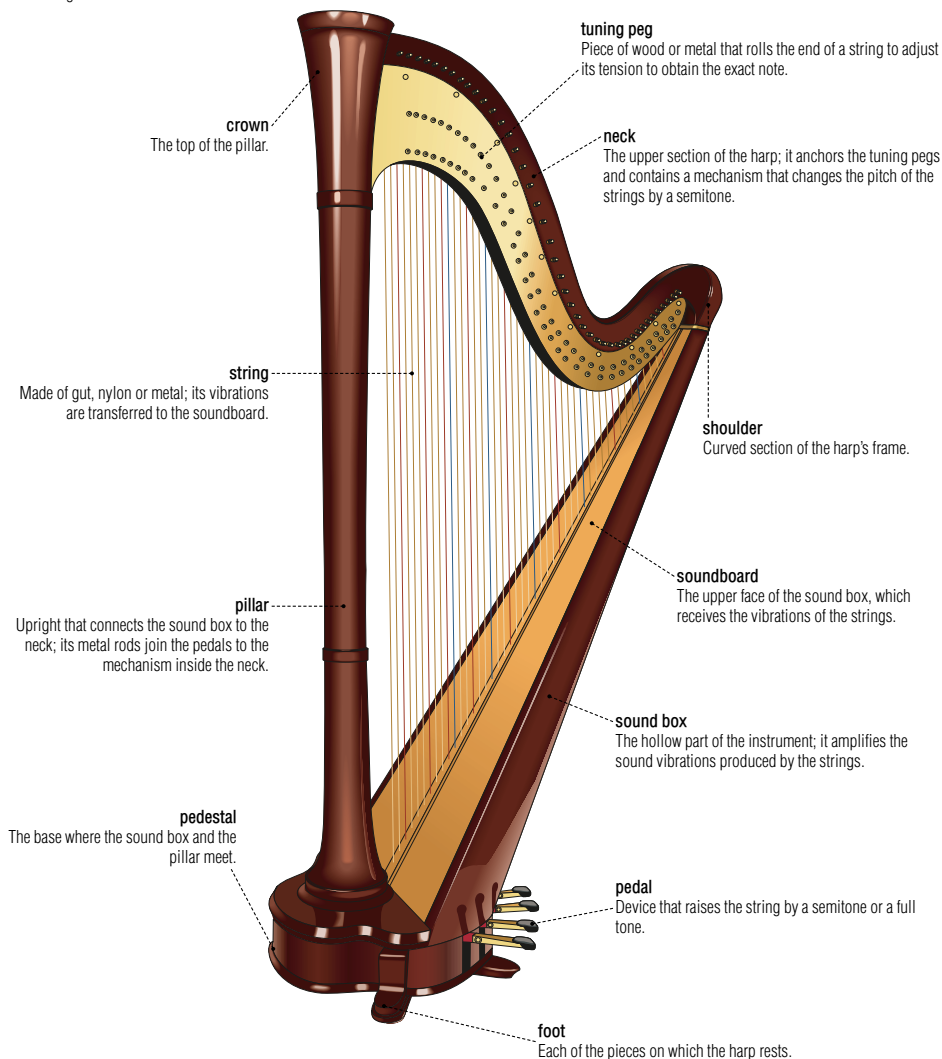
Four-stringed instrument held between the legs when played; it is about twice the size of the violin and its range is an octave lower than the viola.



stringed instruments

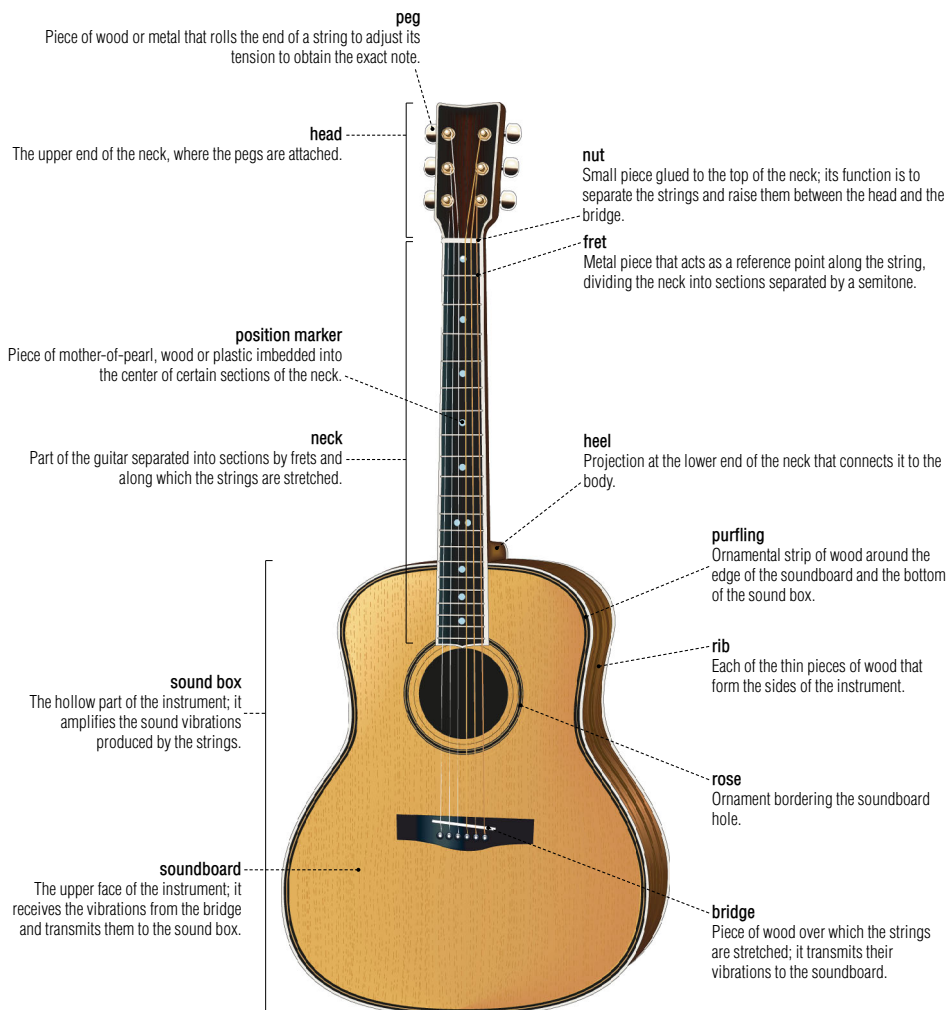
harp

Plucked stringed instrument consisting of strings of various lengths attached to a triangular frame.



acoustic guitar

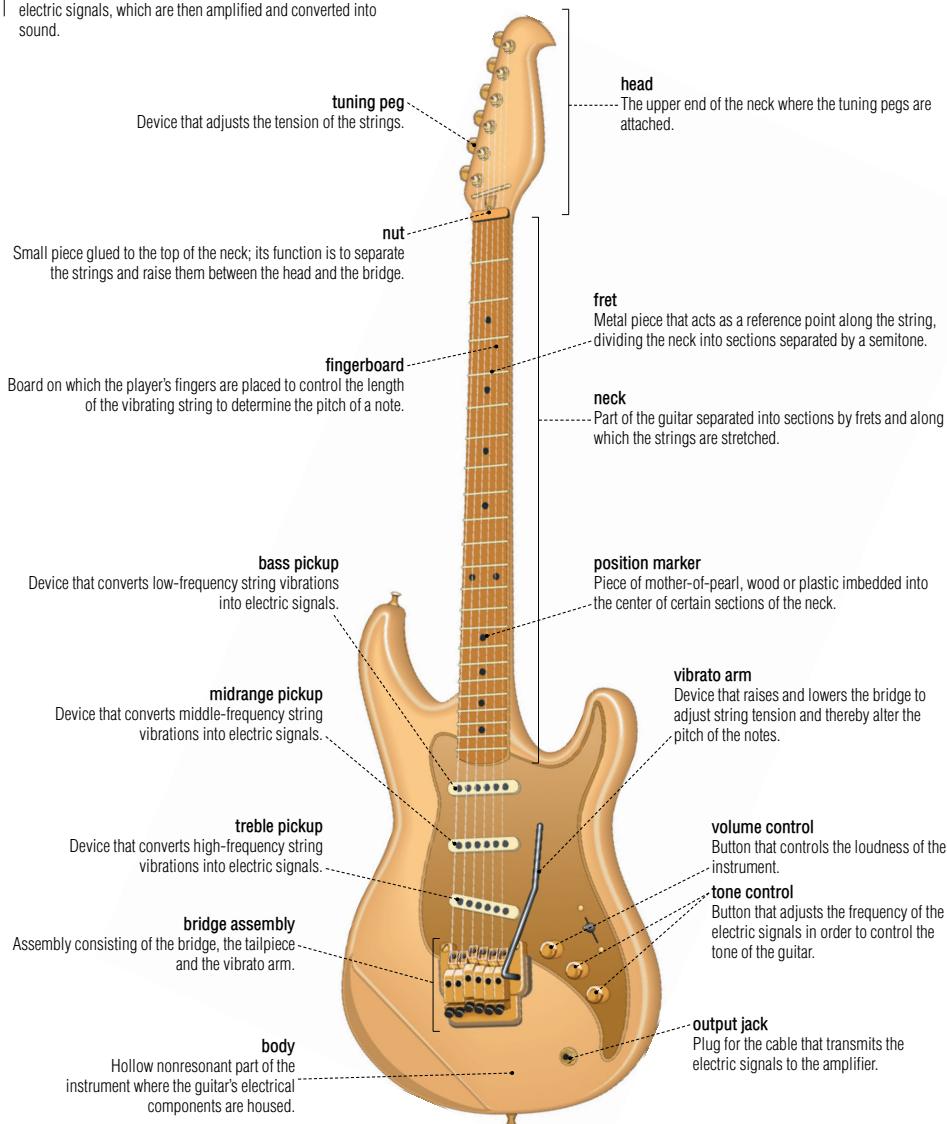
Plucked stringed instrument whose hollow body amplifies the vibrations produced by the strings.



stringed instruments

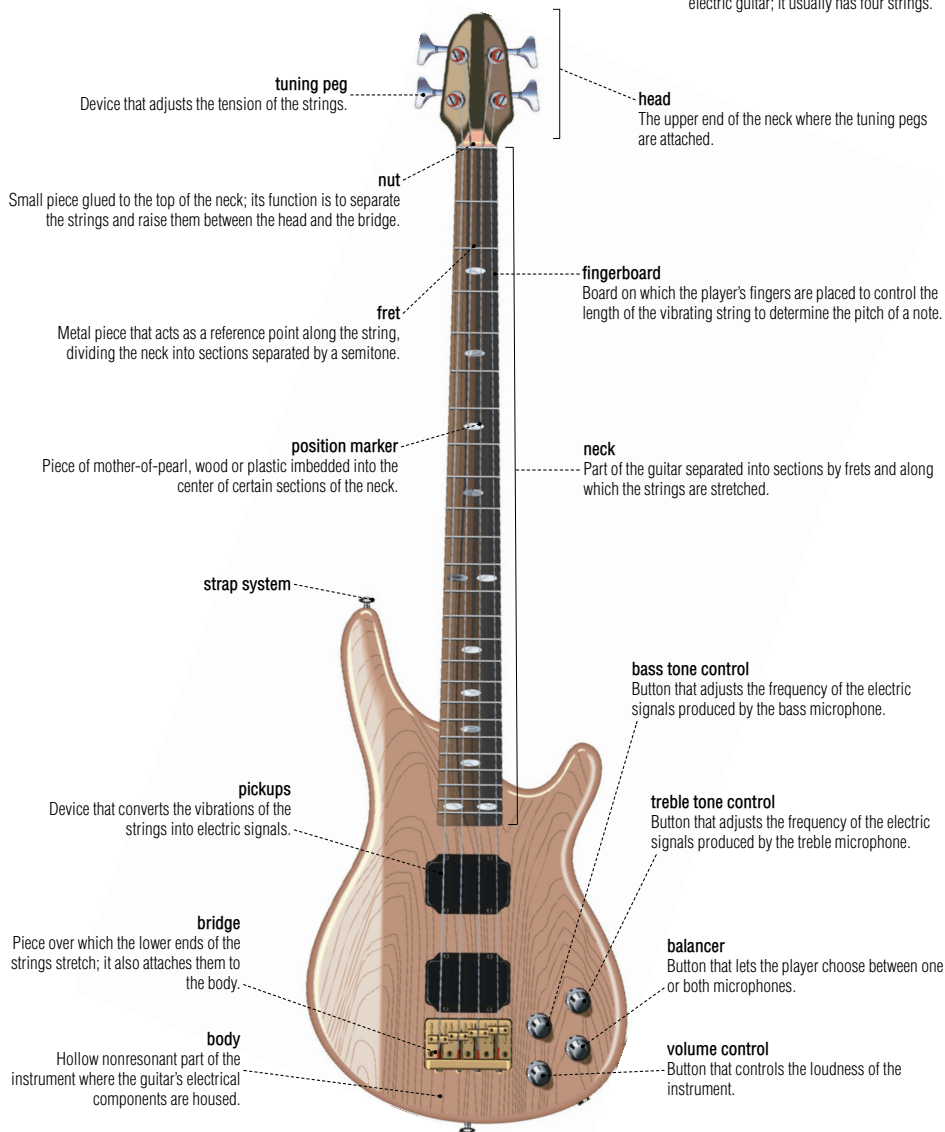
electric guitar

Guitar with microphones that convert string vibrations into electric signals, which are then amplified and converted into sound.



bass guitar

Guitar whose tonal range is lower than that of the electric guitar; it usually has four strings.

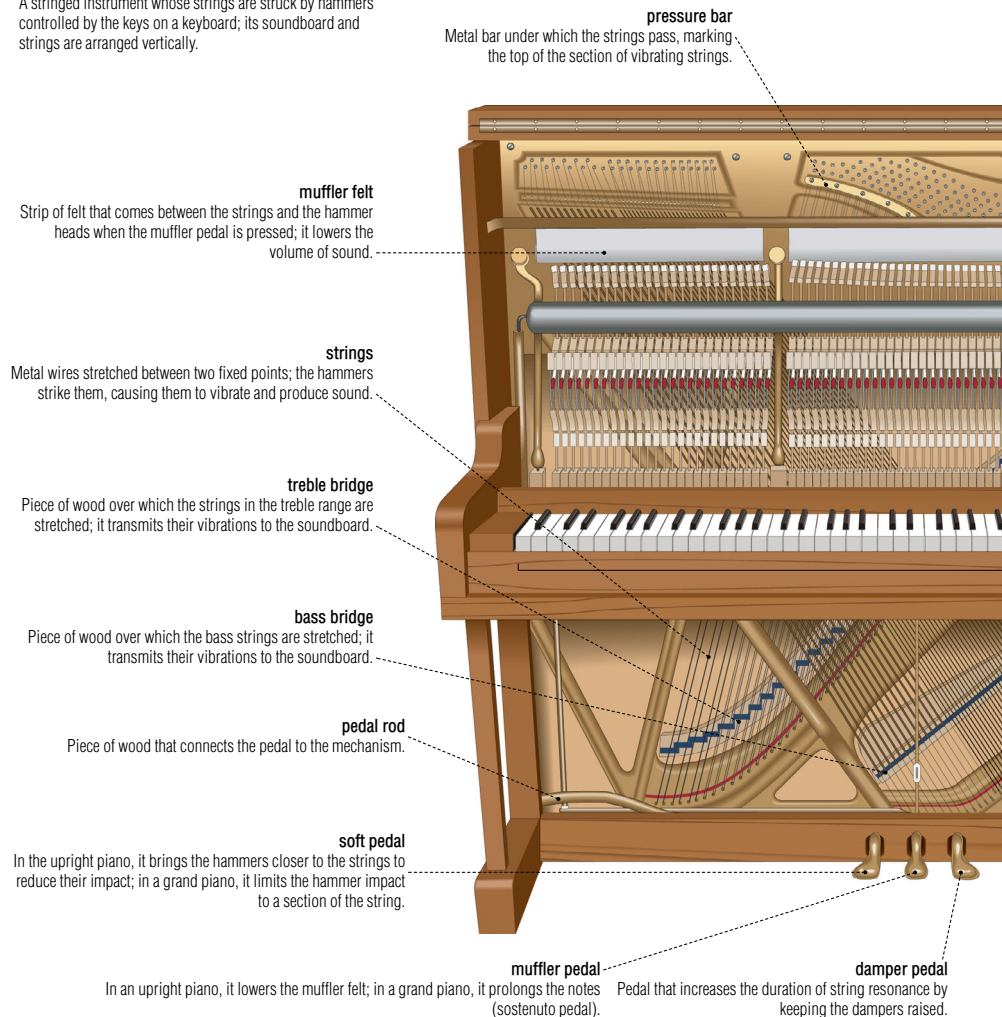


keyboard instruments

Instruments with a series of keys that are pressed to strike or pluck strings and thereby produce sound.

upright piano

A stringed instrument whose strings are struck by hammers controlled by the keys on a keyboard; its soundboard and strings are arranged vertically.



pressure bar

Metal bar under which the strings pass, marking the top of the section of vibrating strings.

muffler felt

Strip of felt that comes between the strings and the hammer heads when the muffler pedal is pressed; it lowers the volume of sound.

strings

Metal wires stretched between two fixed points; the hammers strike them, causing them to vibrate and produce sound.

treble bridge

Piece of wood over which the strings in the treble range are stretched; it transmits their vibrations to the soundboard.

bass bridge

Piece of wood over which the bass strings are stretched; it transmits their vibrations to the soundboard.

pedal rod

Piece of wood that connects the pedal to the mechanism.

soft pedal

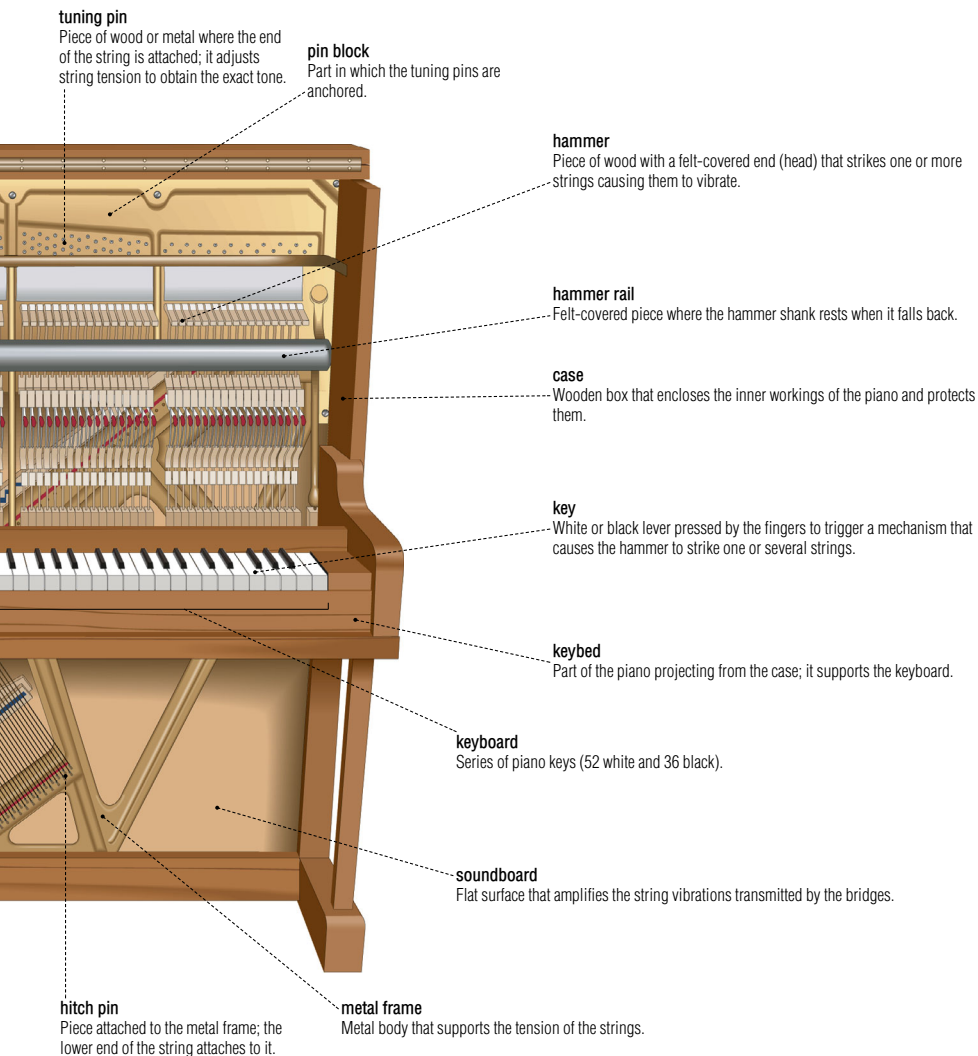
In the upright piano, it brings the hammers closer to the strings to reduce their impact; in a grand piano, it limits the hammer impact to a section of the string.

muffler pedal

In an upright piano, it lowers the muffler felt; in a grand piano, it prolongs the notes (sostenuto pedal).

damper pedal

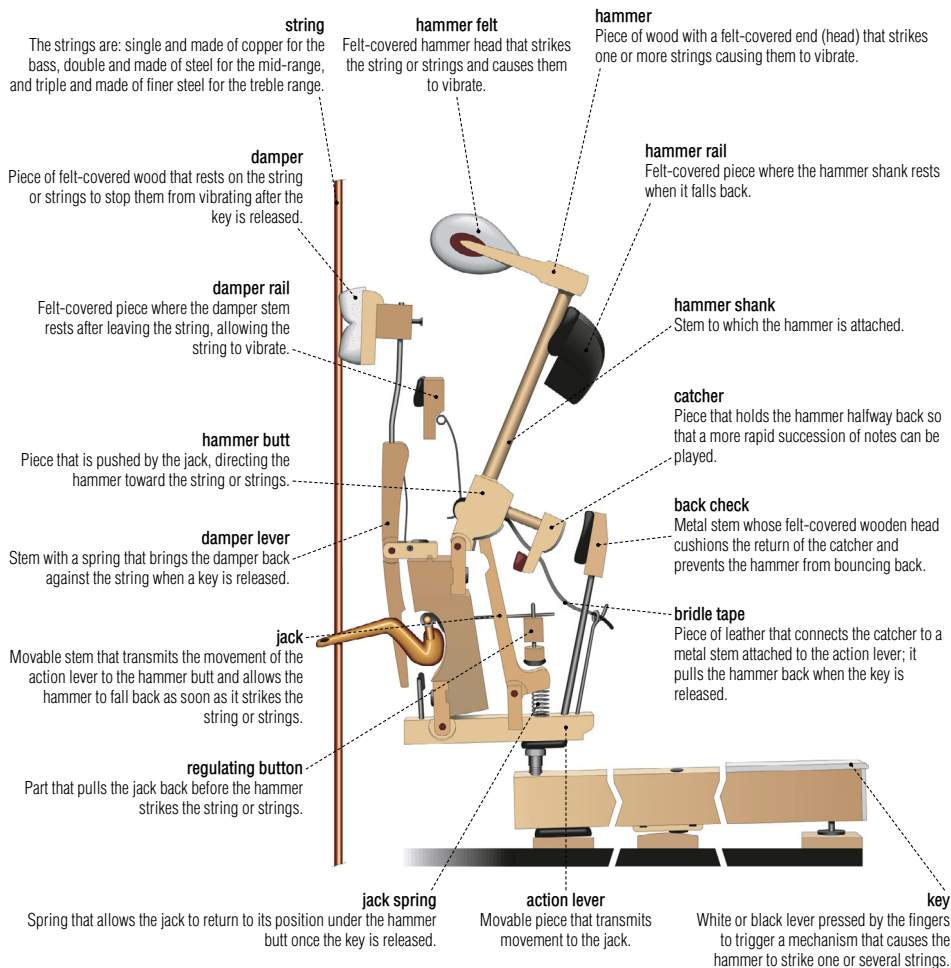
Pedal that increases the duration of string resonance by keeping the dampers raised.



keyboard instruments

upright piano action

Combination of elements whereby energy applied to a key is transferred to the hammer, which in turn causes the strings to vibrate.



examples of keyboard instruments

concert grand

Piano whose mechanism is horizontal, allowing the pianist to better control the sound; it varies in size from 8 to 9 ft.

**baby grand**

Grand piano measuring around 5.5 ft.

**boudoir grand**

Grand piano measuring from 6 to 7 ft.

**harpsichord**

Plucked string instrument consisting of one or several keyboards.

keyboard instruments

organ

Wind instrument with several keyboards; it produces sound by means of pipes that are fed by a blower.

organ console

Console consisting of the mechanisms controlled by the organist (e.g., manuals, pedals, stop knobs).

coupler-tilt tablet

Plate that controls the mechanism joining two or more manuals.

thumb piston

Hand-controlled mechanism used to prepare the pipes of a manual in advance, making them sound only when the piston is pushed.

manuals

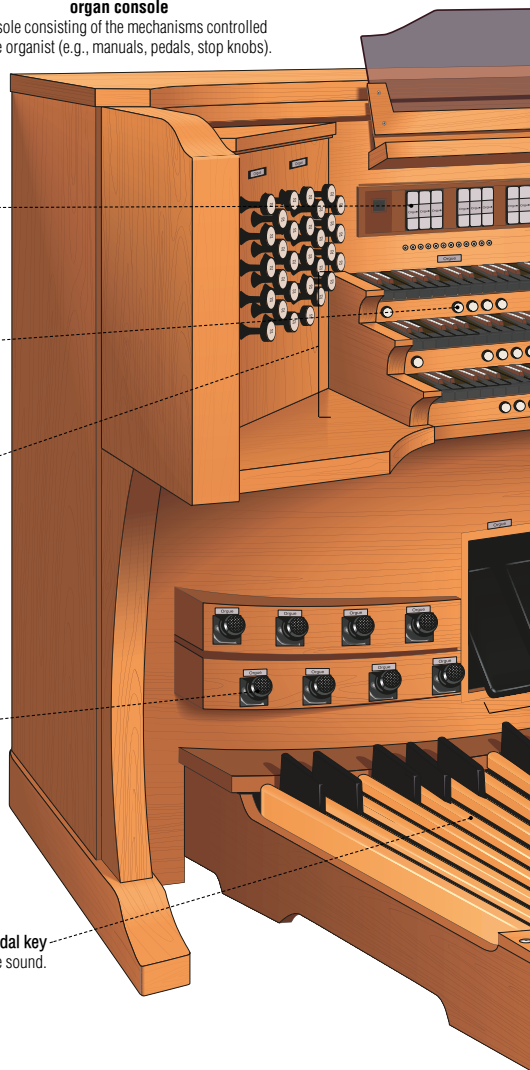
Each of the series of keys that the organist plays by hand, which control one or several pipes of the same note.

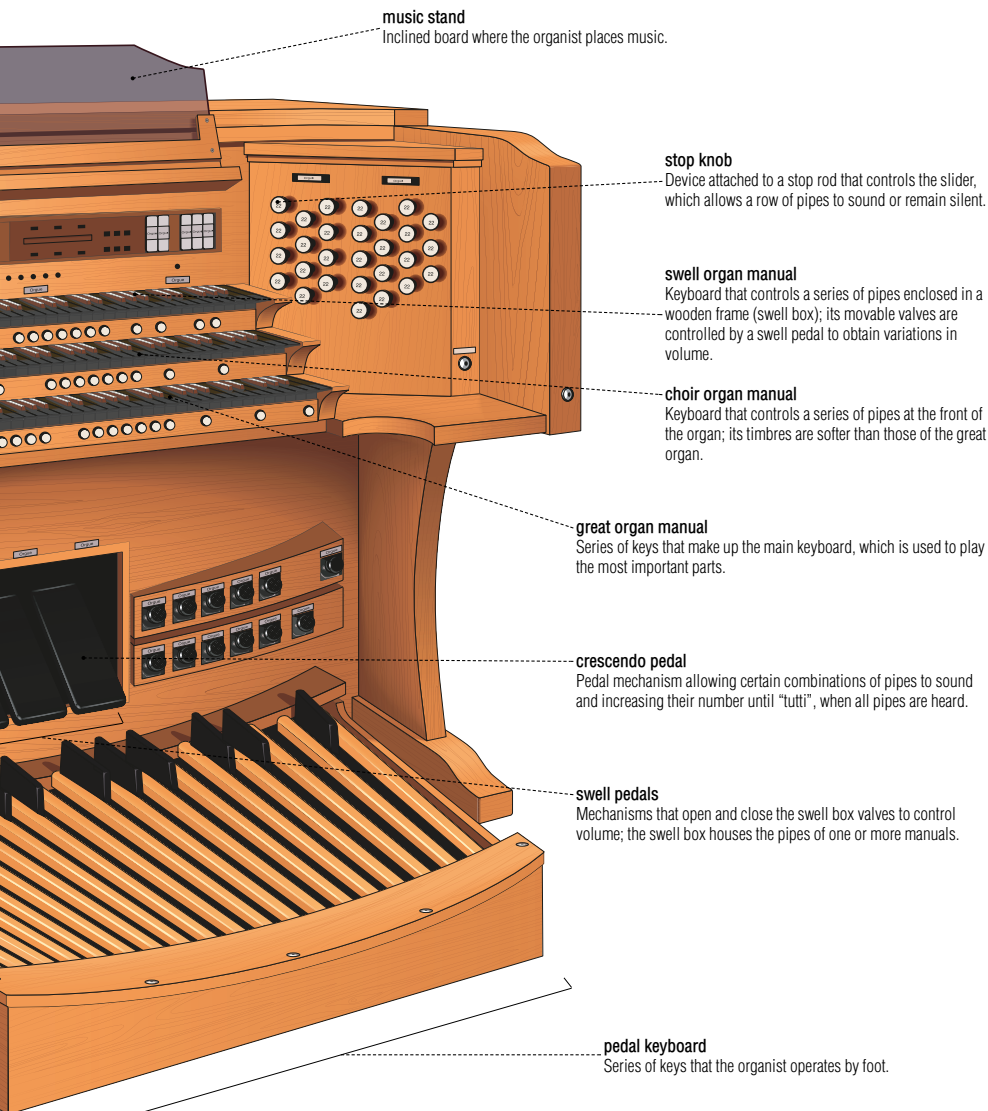
toe piston

Mechanism controlled by foot that prepares the pipes in advance, making them sound only when the pedal is pushed.

pedal key

Lever that is lowered using the foot to allow air to enter and produce sound.

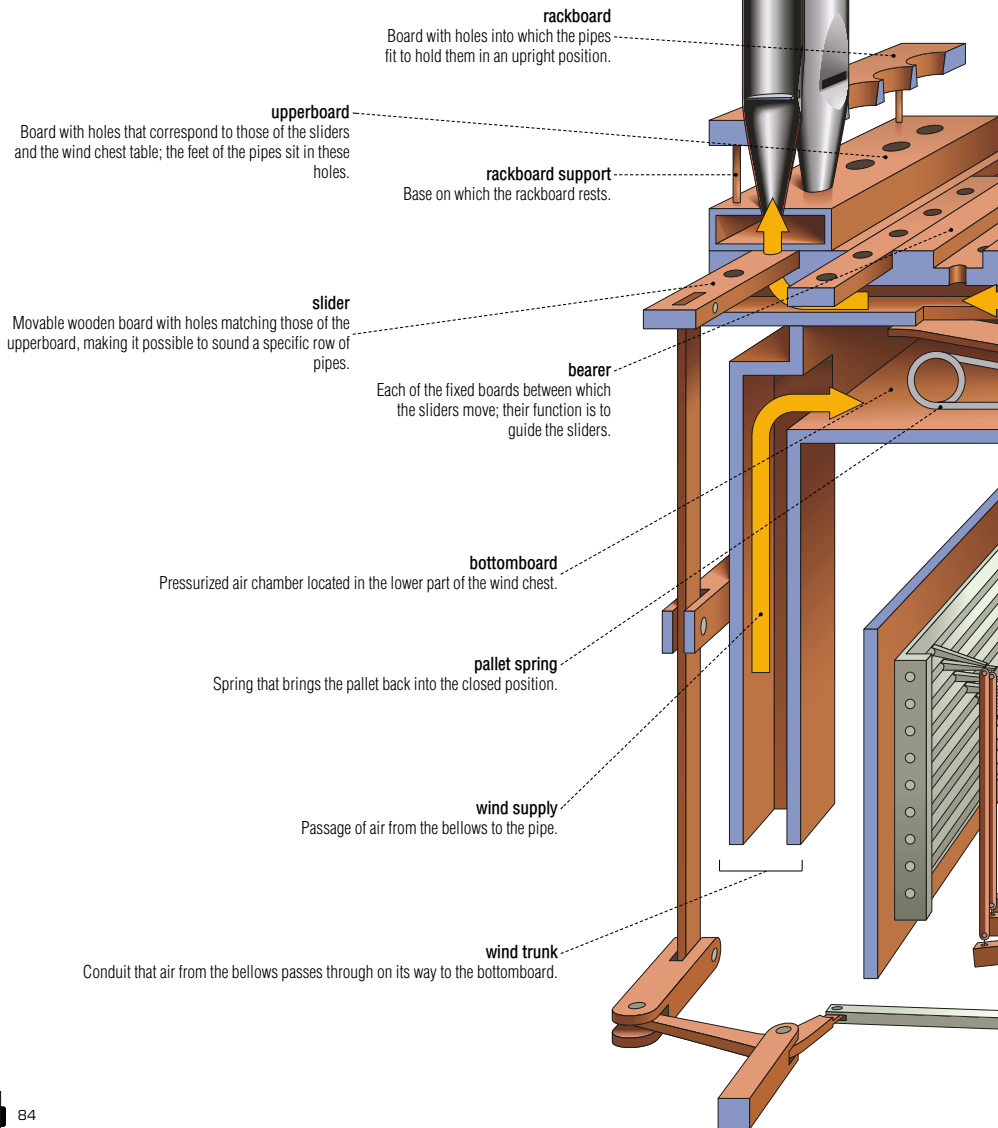


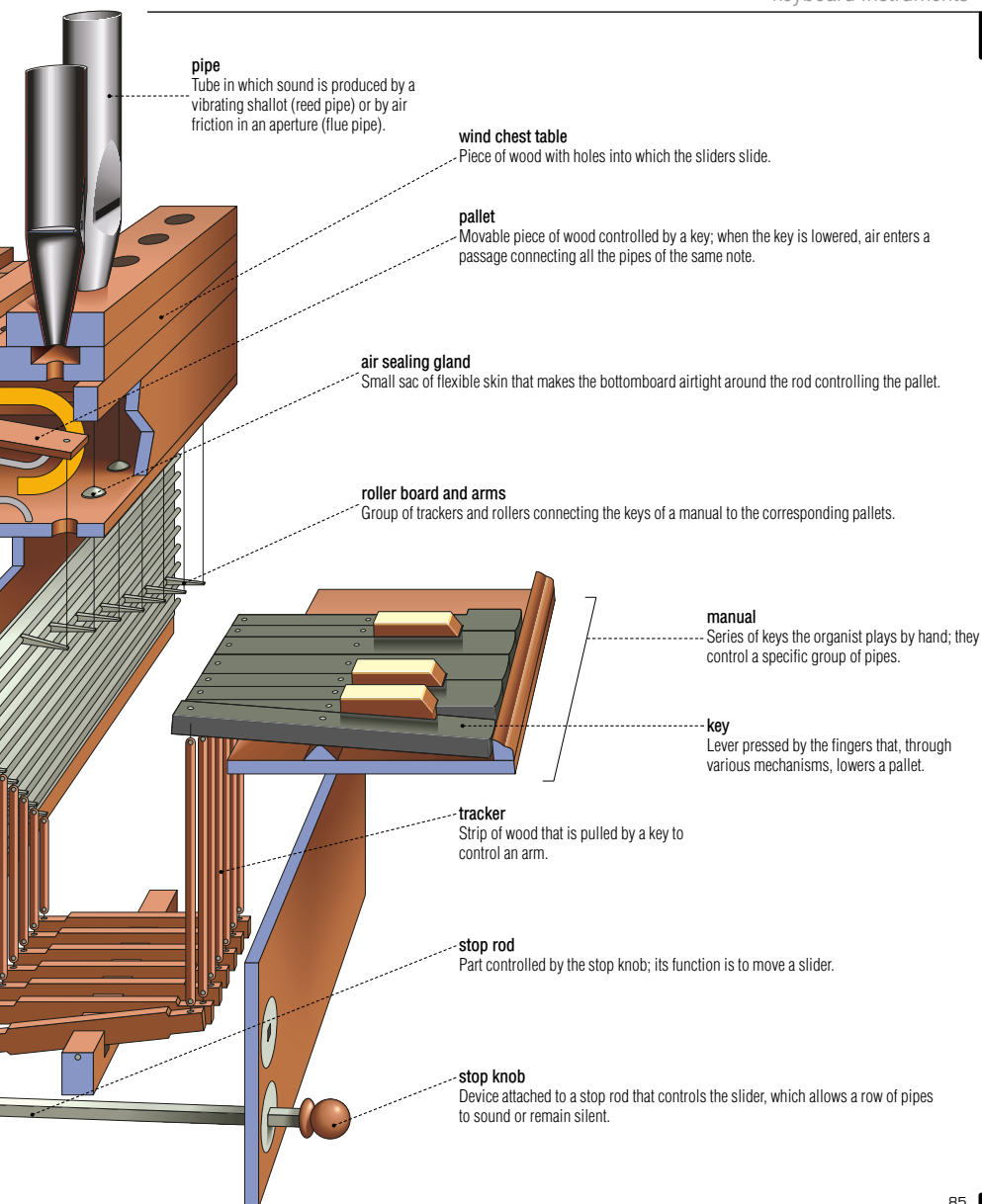


keyboard instruments

mechanism of the organ

All the parts between the manual keys and the pipes; in combination, they cause the organ to function.

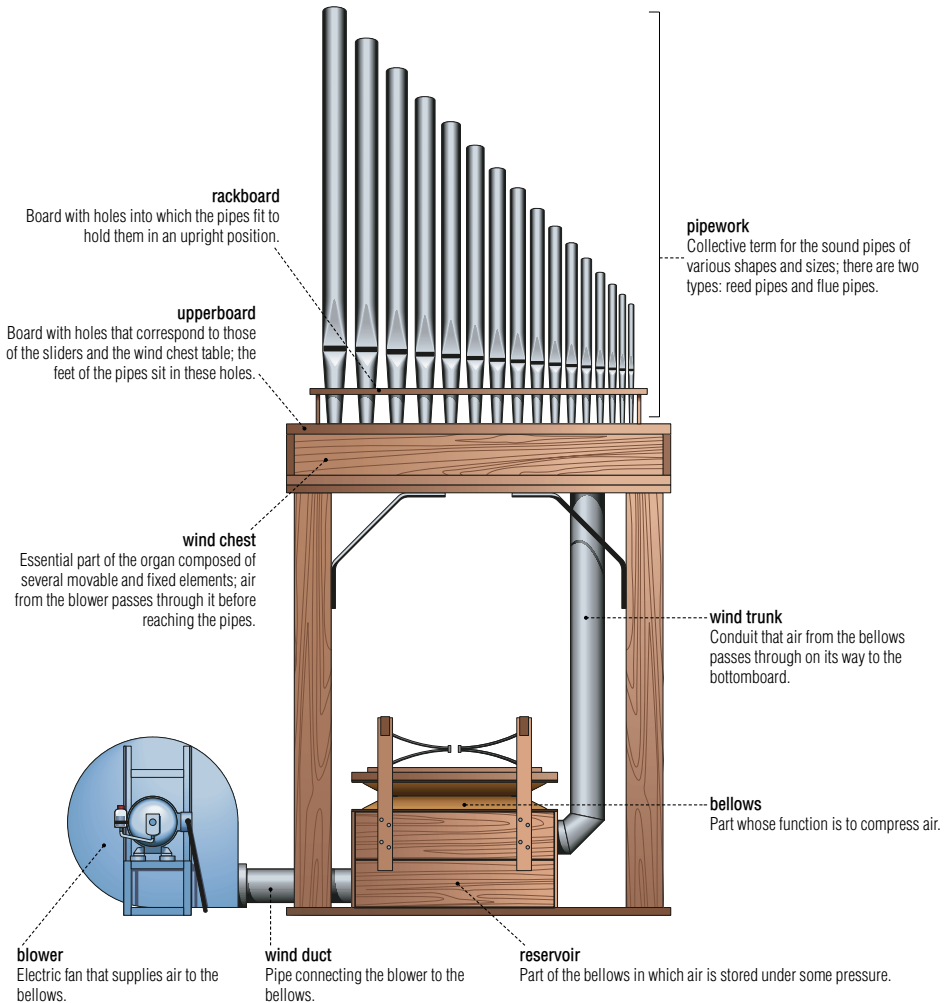




keyboard instruments

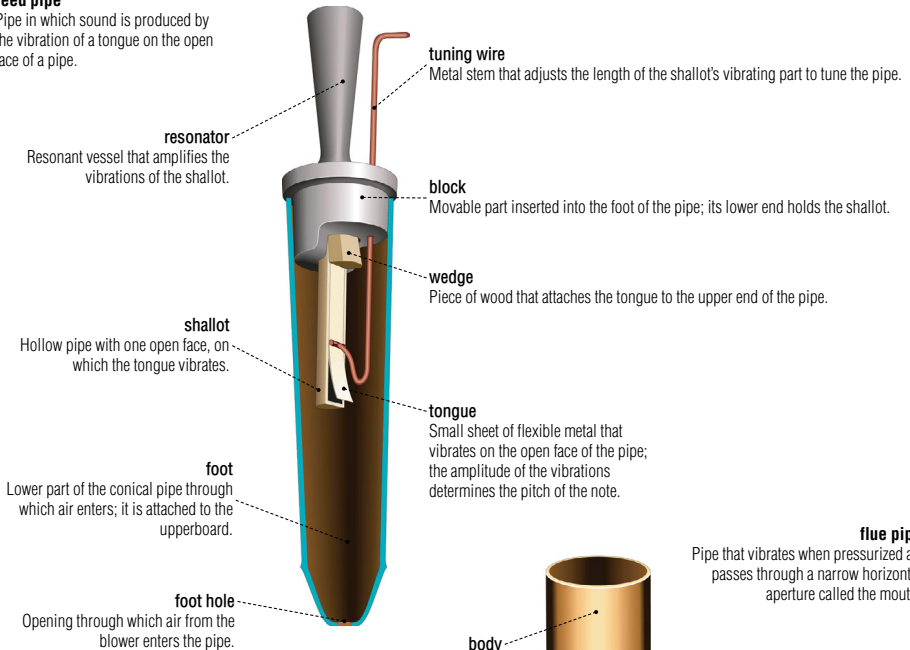
production of sound

The sound made by the organ pipes is generated by a supply of air from an electric blower.

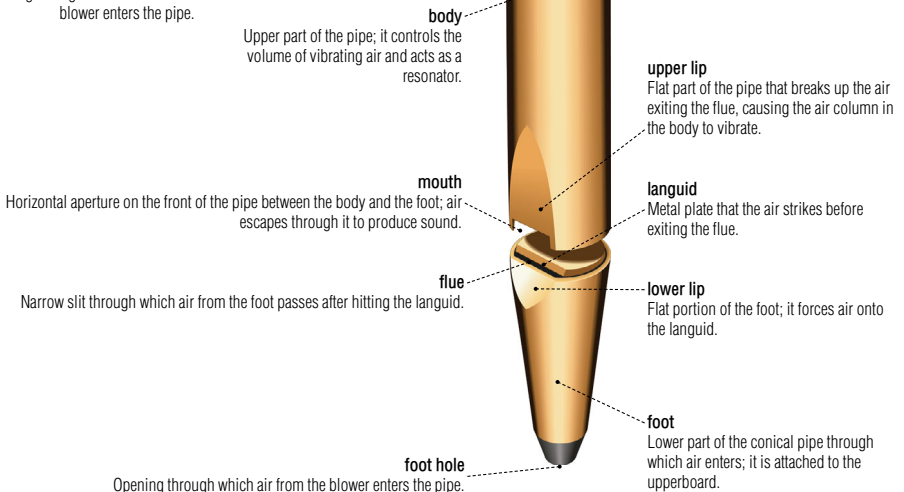


reed pipe

Pipe in which sound is produced by the vibration of a tongue on the open face of a pipe.

**flue pipe**

Pipe that vibrates when pressurized air passes through a narrow horizontal aperture called the mouth.

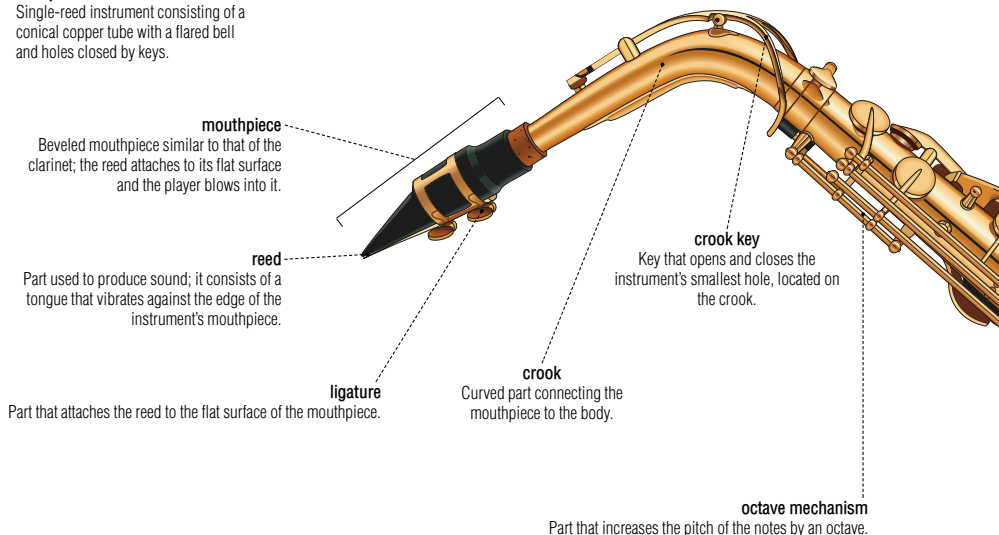


wind instruments

Collective term for instruments that produce sound by blowing, which causes the air column inside the tube to vibrate; a reed or the lips are used to play them.

saxophone

Single-reed instrument consisting of a conical copper tube with a flared bell and holes closed by keys.



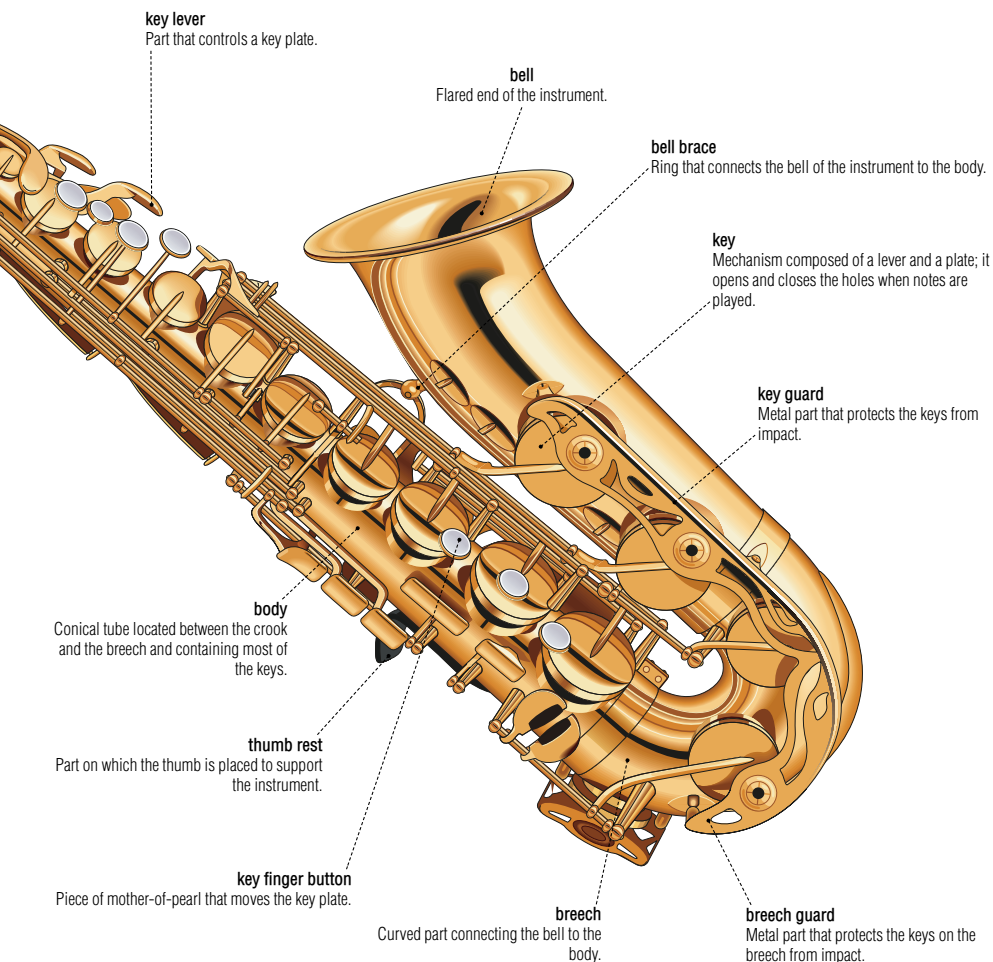
double reed

Part of the mouthpiece used to produce sound; it consists of two tongues that vibrate against each other.



single reed

Part used to produce sound on a woodwind instrument; it consists of a tongue that vibrates against the edge of the mouthpiece.



**bassoon**

Instrument with a double reed that fits into a curved mouthpiece; it consists of two parallel wooden tubes joined at the base.

**clarinet**

Single-reed instrument consisting of a cylindrical tube with holes (some closed by keys) and a flared bell.

**piccolo**

Small transverse flute whose range is an octave higher than the regular transverse flute.

**oboe**

Double-reed instrument consisting of a conical tube with holes (some closed by keys) and a slightly flared bell.

**transverse flute**

Instrument consisting of a metal or wooden tube with holes (some closed by keys) and a side mouthpiece; it is held horizontally.

**English horn**

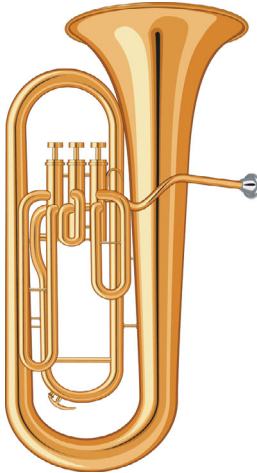
Alto oboe with a pear-shaped bell.

tuba

Valved instrument whose tonal range is the lowest in the brass family; it consists of a coiled conical tube and an upturned bell.

**saxhorn**

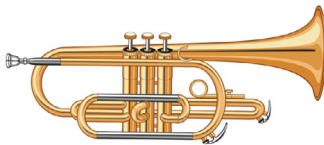
Valved instrument whose range is a fifth lower than the cornet; it consists of a curved conical tube and a large bell.

**French horn**

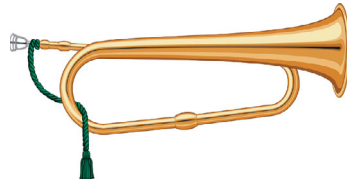
Valved instrument consisting of a coiled conical tube and a flared bell.

**trombone**

Instrument with a curved tube and a slide that is lengthened to produce notes varying in pitch by semitones; its register is lower than that of the trumpet.

**cornet**

Valved instrument consisting of a curved conical tube and a flared bell.

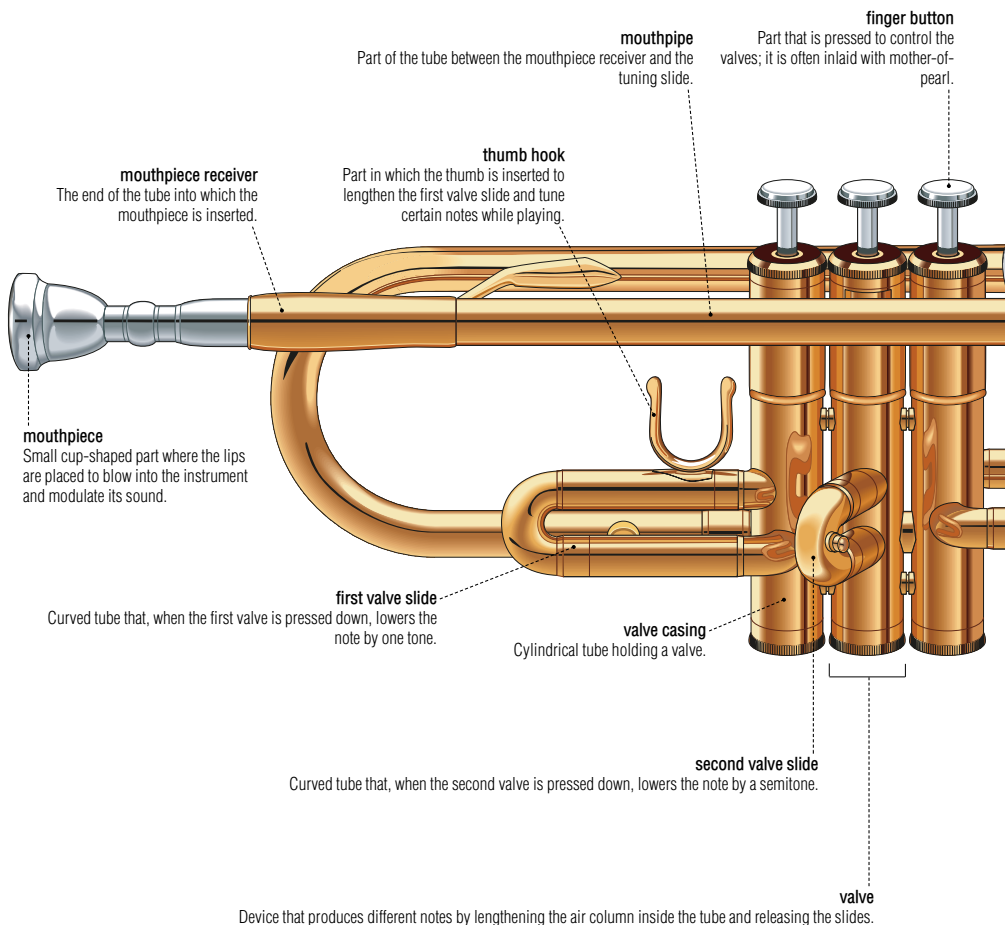
**bugle**

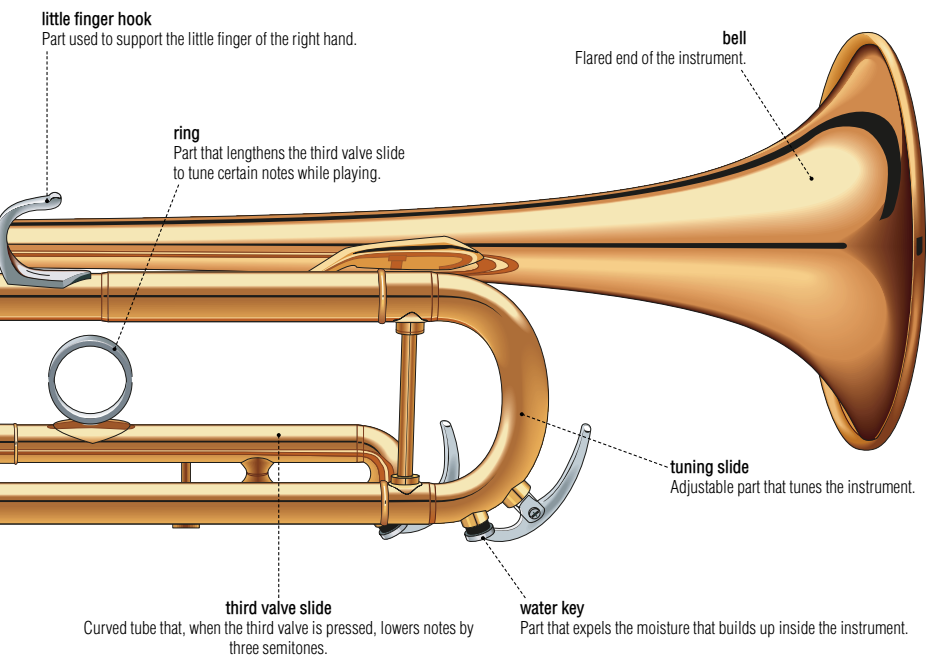
Instrument with a conical tube and no valves or keys; it is used mainly for military calls.

wind instruments

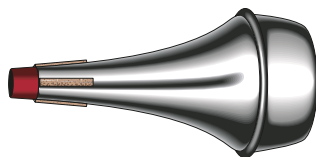
trumpet

Valved instrument consisting of a coiled cylindrical tube and a flared bell.





mute
Device that is inserted into the bell to muffle the sound.

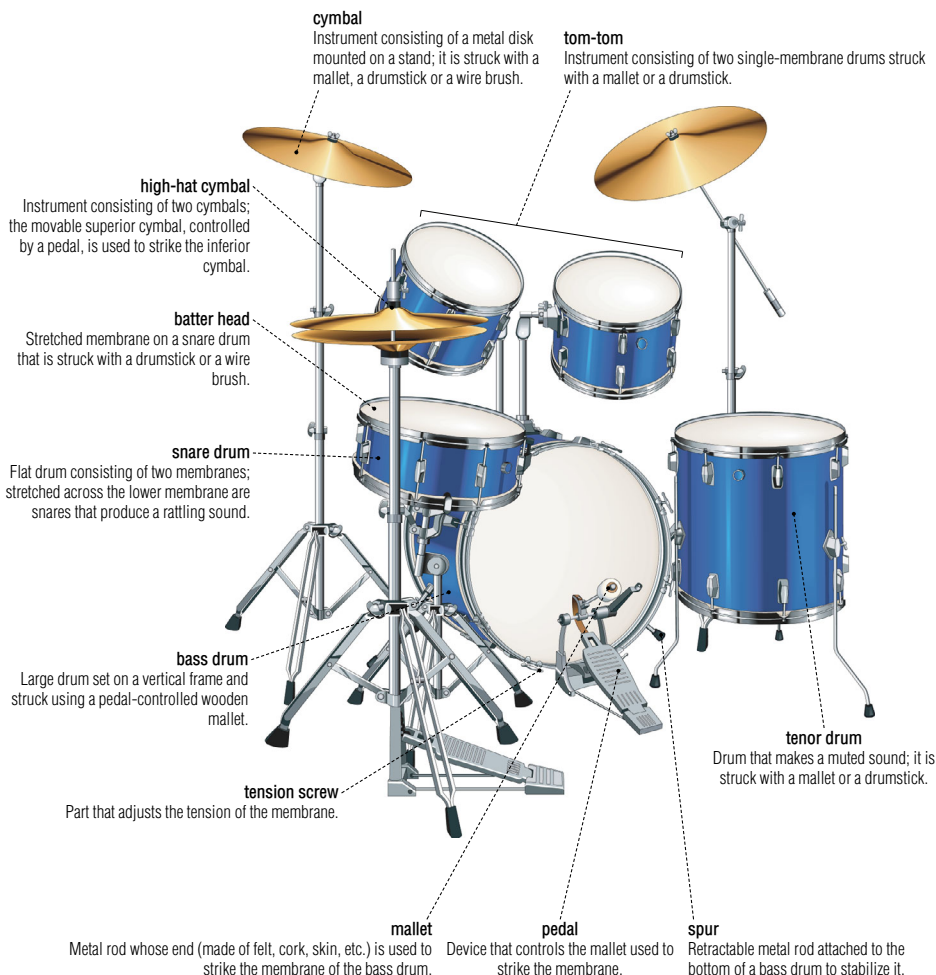


percussion instruments

Group of instruments that are struck directly with the hands or with sticks, mallets, etc. to produce a sound.

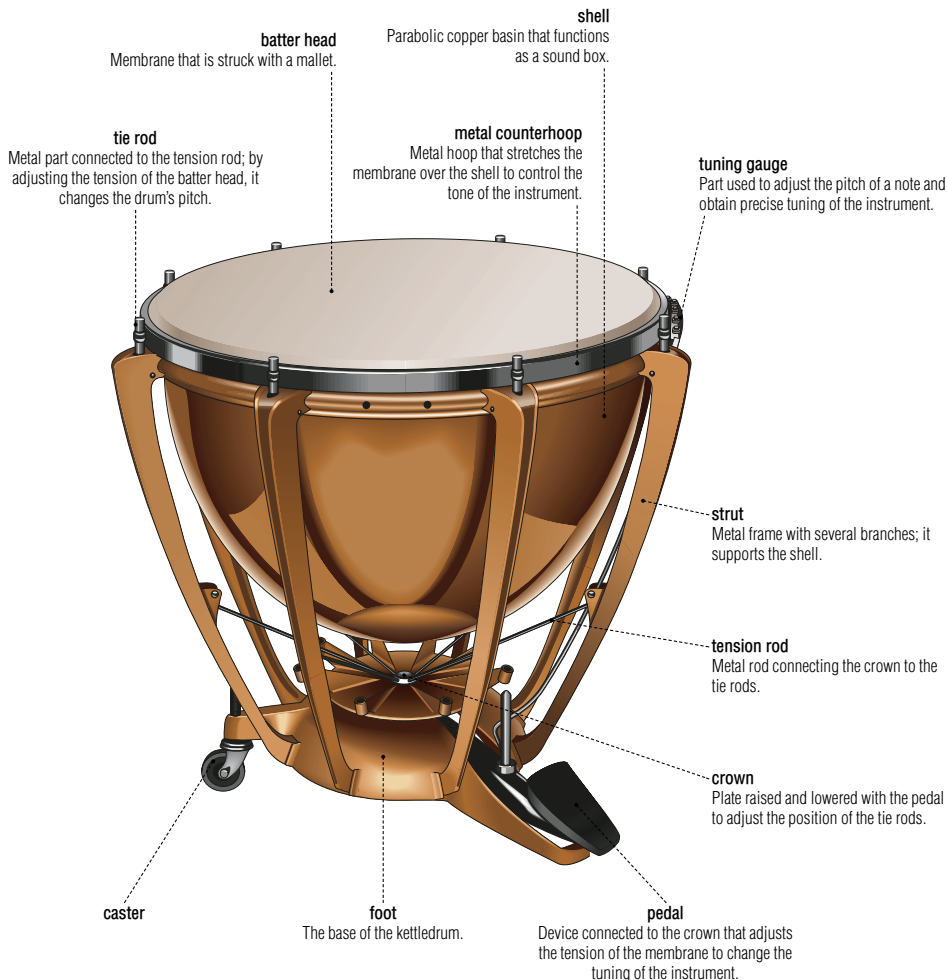
drums

All the percussion instruments played by a single musician, the drummer.



kettledrum

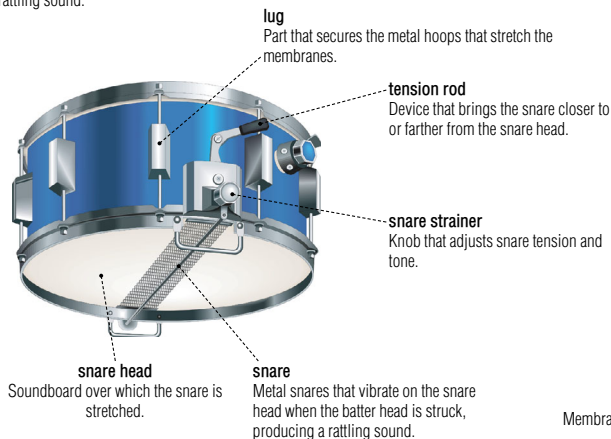
Instrument consisting of a parabolic copper basin that functions as a sound box. The instrument is covered with a stretched membrane that is struck with mallets.



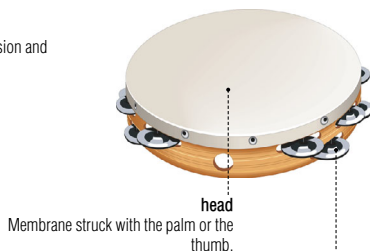
percussion instruments

snare drum

Flat drum consisting of two membranes; stretched across the lower membrane are snares that produce a rattling sound.

**tambourine**

Instrument consisting of a wooden hoop covered with a membrane and fitted with jingles; it can be struck, brushed or shaken.

**bongos**

Instrument consisting of two small connected drums; they are usually struck with the hands.

**wire brush**

Instrument consisting of extremely fine steel wires that are brushed across a cymbal or the batter head on a snare drum.

**sticks**

Sticks of wood with olive-shaped heads used to strike a percussion instrument.

**mallets**

Metal or wooden rods whose end (made of felt, skin, rubber, etc.) is used to strike an instrument.

**sleigh bells**

Set of hollow metal pieces with a free-moving steel ball inside; they are tied to a ribbon and used as accompaniment.

set of bells

Series of small bells attached to a ribbon and used as accompaniment.

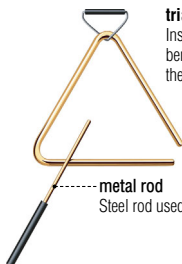
**castanets**

Instrument composed of two shell-shaped pieces of wood held in one hand and struck together using the fingers.

gong
Instrument consisting of a large metal disk with a raised central portion that is struck using a mallet.

**triangle**

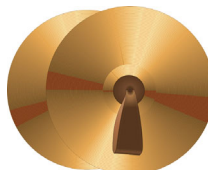
Instrument composed of a metal bar bent to form a triangle open at one end; the triangle is struck with a metal rod.

**metal rod**

Steel rod used to strike the triangle.

**sistrum**

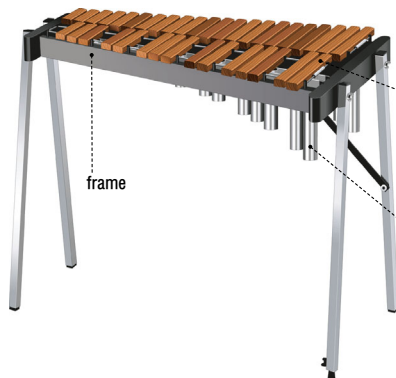
Instrument consisting of a frame with crossbars and attached metal disks that knock together when the instrument is shaken.

**tubular bells**

Series of metal tubes arranged vertically in order of size; small hammers are used to strike the tops of the tubes.

xylophone

Instrument consisting of wooden bars placed on top of resonators arranged in chromatic order in two rows; the bars are struck with mallets.

**bar**

Wooden slats that the player strikes with mallets.

resonator

Metal tube whose function is to amplify sound.

cymbals

Instrument consisting of two metal disks that are struck together.



electronic instruments

Electronic instruments are designed to imitate, convert or produce sounds based on electric signals and digital data.

sampler

Component that digitizes and stores sounds based on recordings of various acoustic sources, and reconverts them into sound signals.



headphone jack

Slot that takes the plug from the headphones.

function display

Liquid crystal display indicating various data.

disk drive

Device used to read or record data on a diskette.

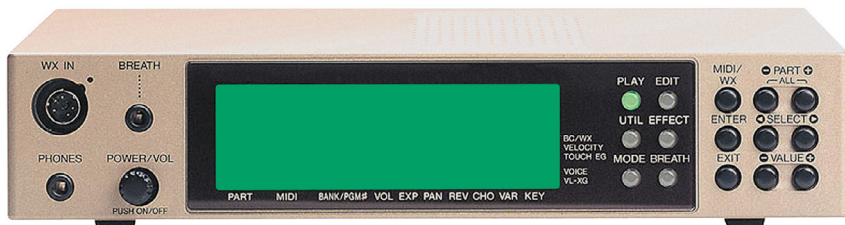
sequencer

Component used to record, read and change MIDI data, the digital data used to create electronic music.



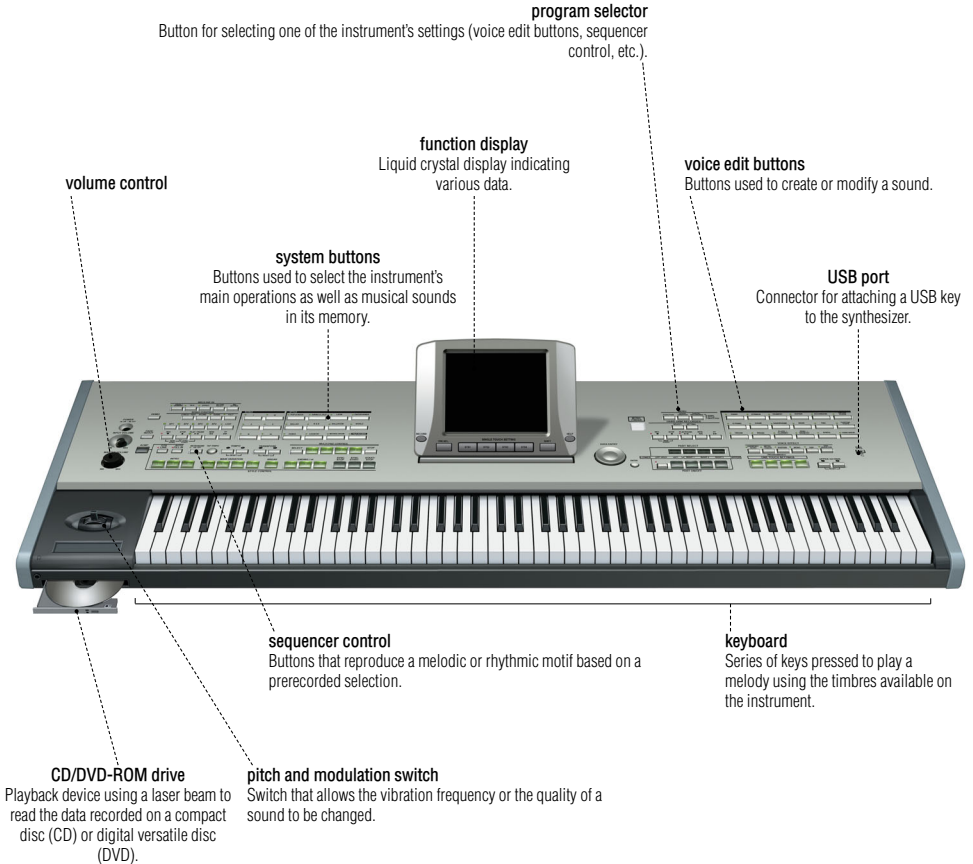
expander

Synthesizer used to produce sounds based on digital data transmitted by a keyboard, a sequencer or a computer.



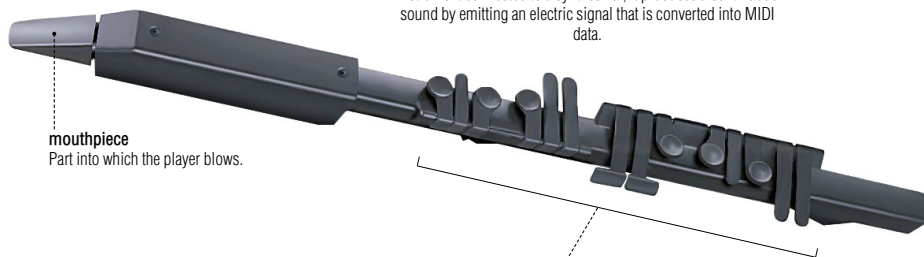
synthesizer

Instrument that imitates other instruments or creates new sounds using electric signals.



wind synthesizer controller

Instrument connected to a synthesizer; it produces a continuous sound by emitting an electric signal that is converted into MIDI data.

**mouthpiece**

Part into which the player blows.

keys

Mechanisms composed of a lever and a plate; they open and close the holes when notes are played.

musical instrument digital interface (MIDI) cable

Cable connecting two MIDI instruments; the MIDI interface is used to transfer digital data and electric signals.

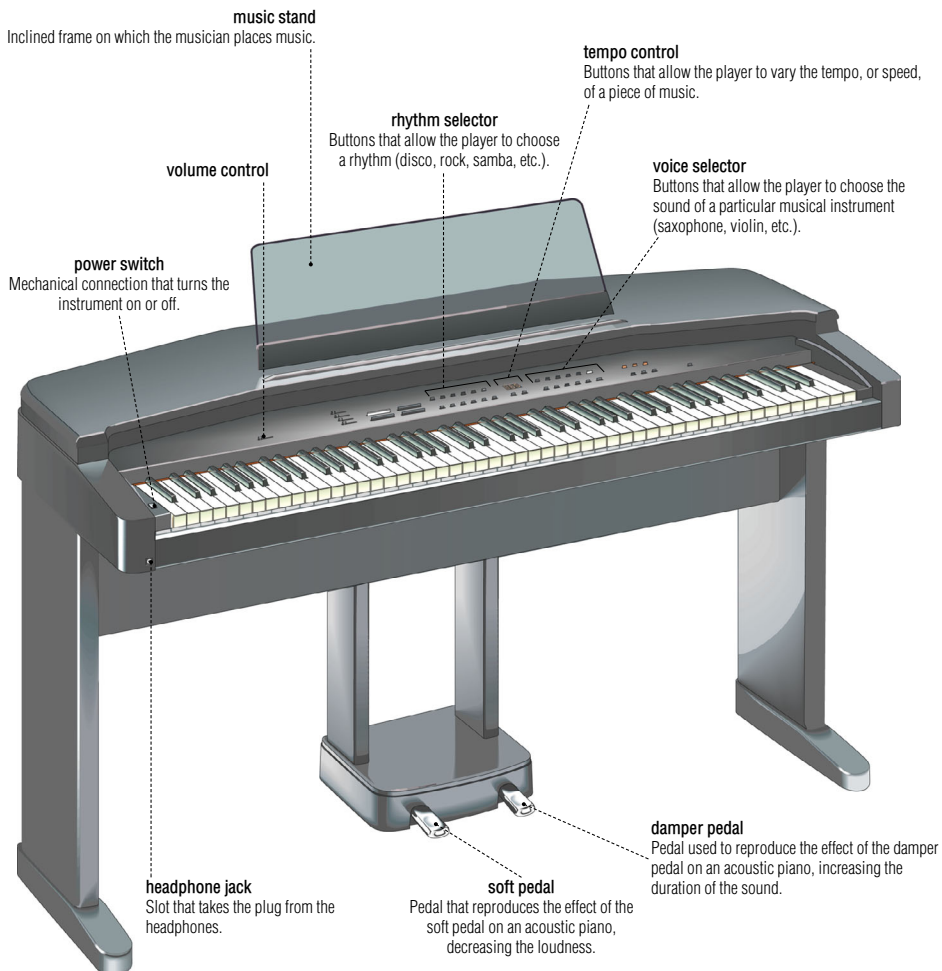
**electronic drum pad**

Instrument that is struck with drumsticks to produce a percussive sound by emitting an electric signal that is converted into MIDI data.



electronic piano

Piano designed to reproduce the sound of an acoustic piano by converting it into digital data; it also reproduces the sound of other instruments.



sewing

Process of joining two items using a needle and a thread.

sewing machine

Machine used to assemble two pieces of fabric by means of a series of stitches made with a needle and thread.

thread guide

Part used to direct the thread.

stitch width selector

Mechanism used to set the stitch width.

pressure dial

Mechanism used to set the pressure of the hinged presser foot on the fabric.

thread take-up lever

Lever that the upper thread goes through before it is threaded through the needle; it regulates tension.

head

Vertical section that completes the needle's drive mechanism; the presser foot extends from it.

tension block

Parts that control the tension of the upper thread.

needle

Metal stem that passes the thread through the fabric to form a stitch.

hinged presser foot

Articulated end of the presser foot; it consists of two branches between which the needle passes.

needle plate

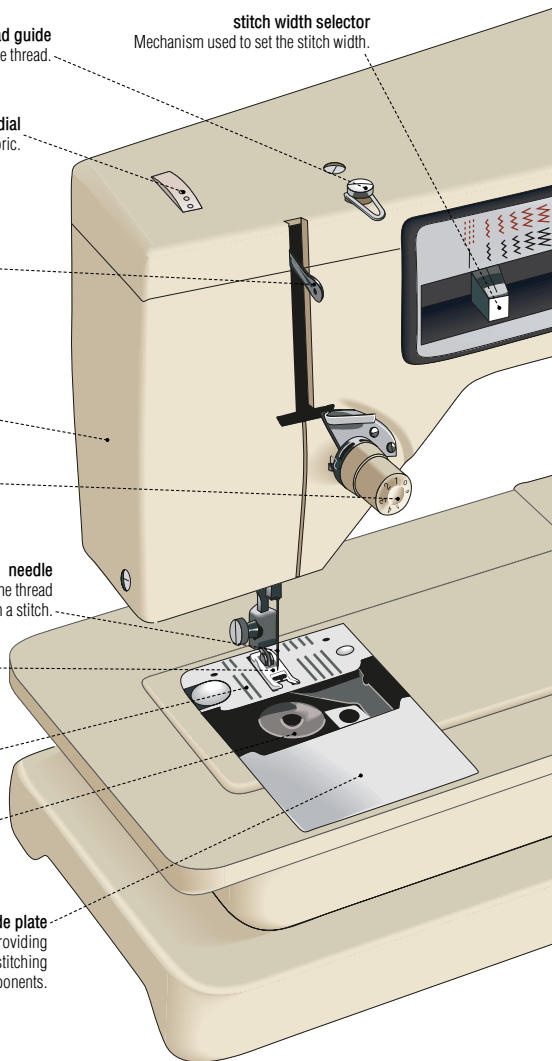
Metal plate with an opening that the needle passes through and two slits from which the feed dogs for the fabric protrude.

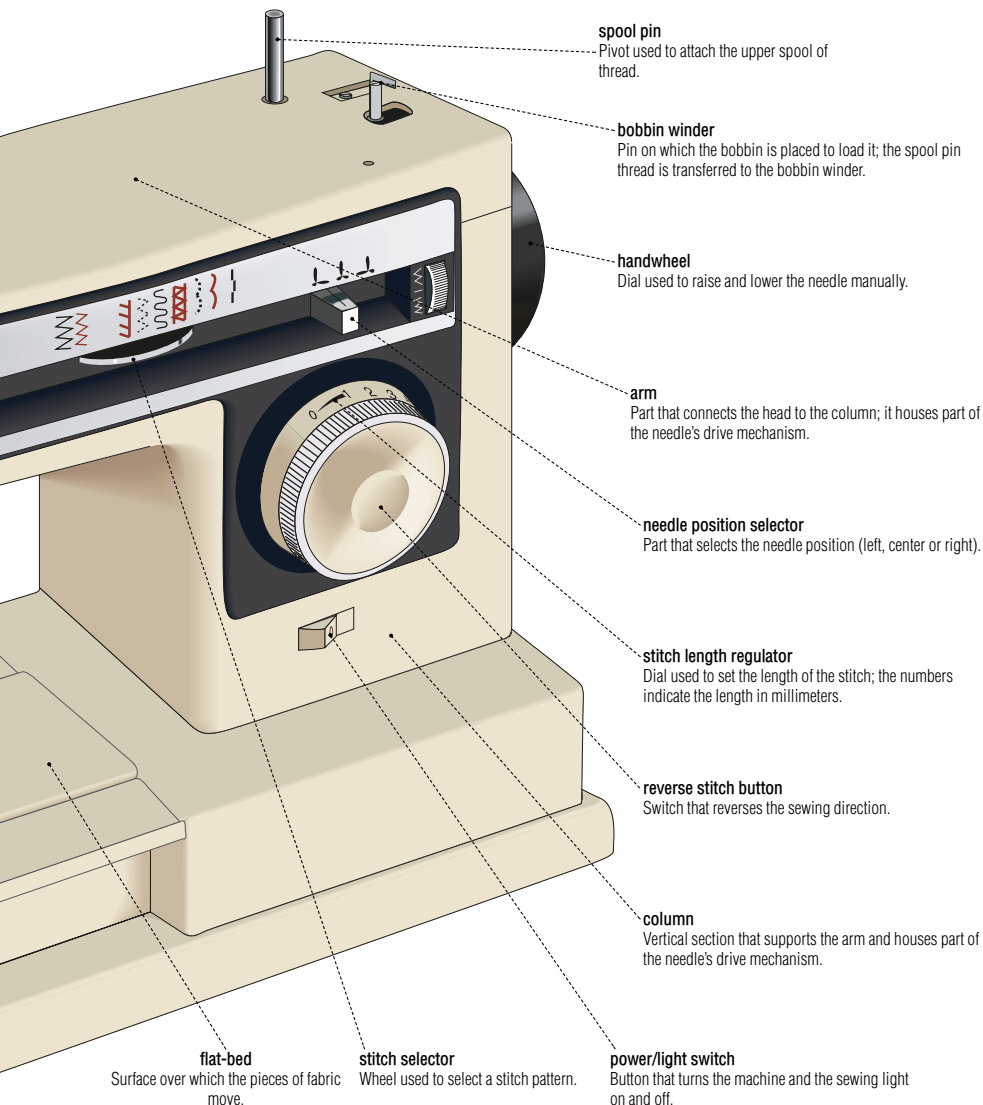
bobbin

Spool on which the lower thread is wound.

slide plate

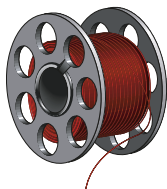
Plate that slides open, providing access to the lower stitching components.



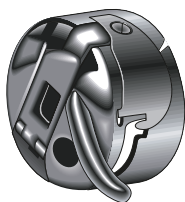


bobbin case

Case placed under the needle plate; the bobbin fits inside it.

**bobbin**

Spool on which the lower thread is wound.

**latch lever**

Mechanism that the bobbin fits into and that regulates lower thread tension.

**hook**

Fixed lower component containing the latch lever.

foot control

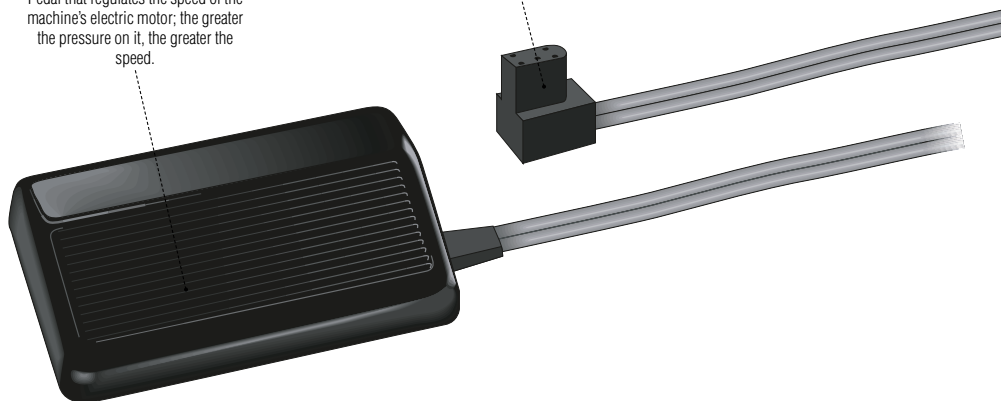
Mechanism operated by foot; it controls the sewing machine's electric motor.

speed controller

Pedal that regulates the speed of the machine's electric motor; the greater the pressure on it, the greater the speed.

connecting terminal

Part that connects the speed controller to the sewing machine.

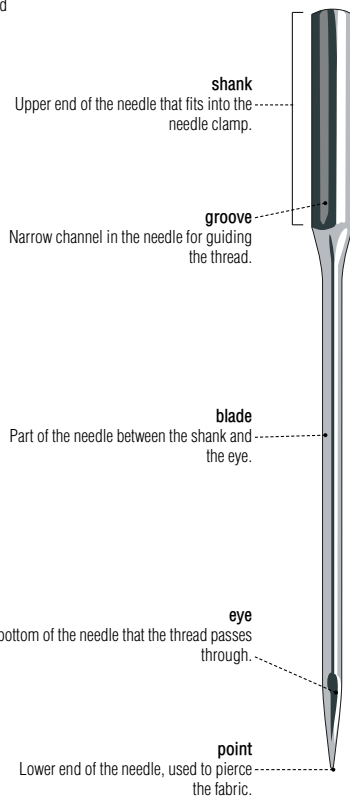


tension block

Parts that control the tension of the upper thread.

**needle**

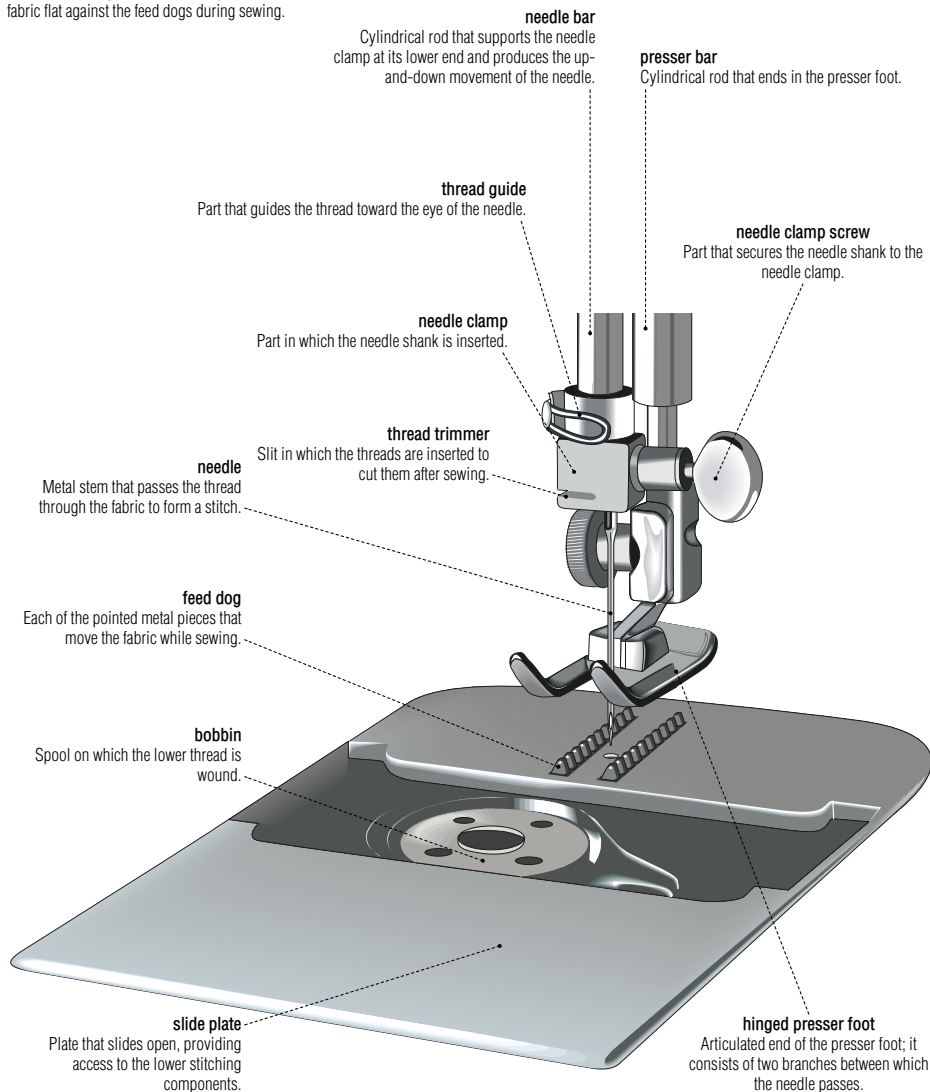
Metal stem that passes the thread through the fabric to form a stitch.



sewing

presser foot

Part of the sewing machine that keeps the fabric flat against the feed dogs during sewing.

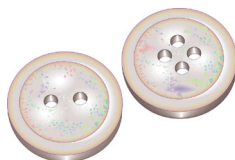


fasteners

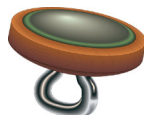
Accessories used to open or close a garment.

**safety pin**

Curved metal stem that forms a spring; the pointed extremity of its flexible arm is kept in place by a hook.

**sew-through buttons**

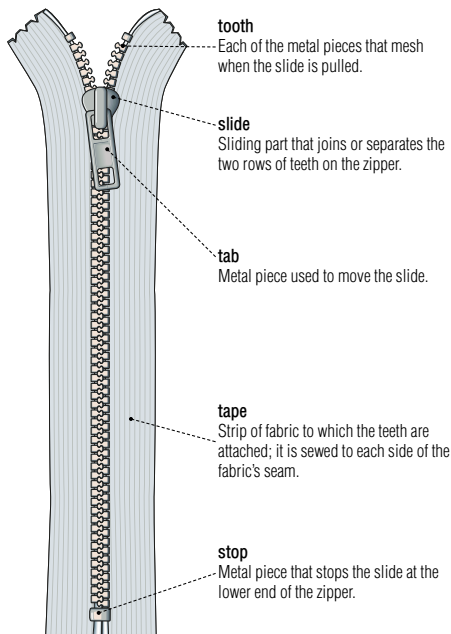
Buttons with two or four holes that the thread passes through to sew them to a piece of fabric.

**shank button**

Button with a metal ring that the thread passes through to sew it to a piece of fabric.

zipper

Closure made up of two lengths of tape edged with teeth that interlock by means of a slide.

**hook and eyes**

Fasteners formed of a metal hook inserted into a round eye or a straight eye.

hook

Curved piece that fits into a round eye or a straight eye to attach or do up a garment.

**round eye**

Horseshoe-shaped ring to which the hook attaches.

**straight eye**

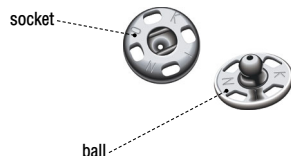
Piece in which the hook is inserted.

ring

Curved end of the round eye used to attach it to a piece of fabric.

snap

Fastening mechanism made of a socket disk and a ball disk that snap shut when pressed together.

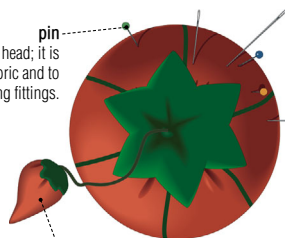


accessories

pin cushion

Small cushion used to hold pins and needles.

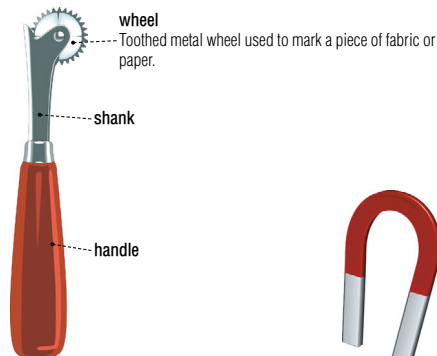
pin
Small pointed metal stem with a head; it is used to fasten two pieces of fabric and to mark fabric during fittings.

**emery pack**

Small cushion filled with powdered emery; it is used to maintain the points of pins and needles.

tracing wheel

Instrument that transfers the design of a pattern to a piece of fabric or another piece of paper using carbon paper.

**wheel**

Toothed metal wheel used to mark a piece of fabric or paper.

shank**handle**

eye
Hole in the head of the needle through which the thread passes.

**thimble**

Metal sleeve used to protect the middle finger, which pushes the needle when sewing by hand.

needle
Metal stem that passes the thread through the fabric to form a stitch.

**tape measure**

Plasticized strip of fabric with a gauge, used to take circular or curved measurements.

**magnet**

Instrument used to collect pins and needles.

**needle threader**

Instrument that makes it easier to insert the thread into the eye of the needle.

seam gauge

Graduated instrument used to take measurements, make checked patterns, trace seam lines, etc.

**skirt marker**

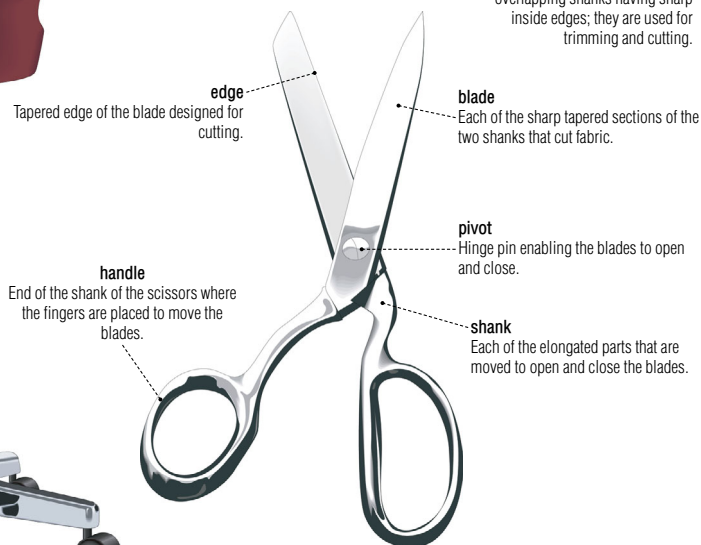
Device fitted with a graduated ruler that moves vertically; it is used to mark the hem of a skirt all around the garment.

**dressmaker's model**

Adjustable model used to make and try on garments.

**pinking shears**

Scissors with a toothed blade used to give a zigzag finish.

**scissors**

Instrument with two movable overlapping shanks having sharp inside edges; they are used for trimming and cutting.

edge

Tapered edge of the blade designed for cutting.

blade

Each of the sharp tapered sections of the two shanks that cut fabric.

pivot

Hinge pin enabling the blades to open and close.

handle

End of the shank of the scissors where the fingers are placed to move the blades.

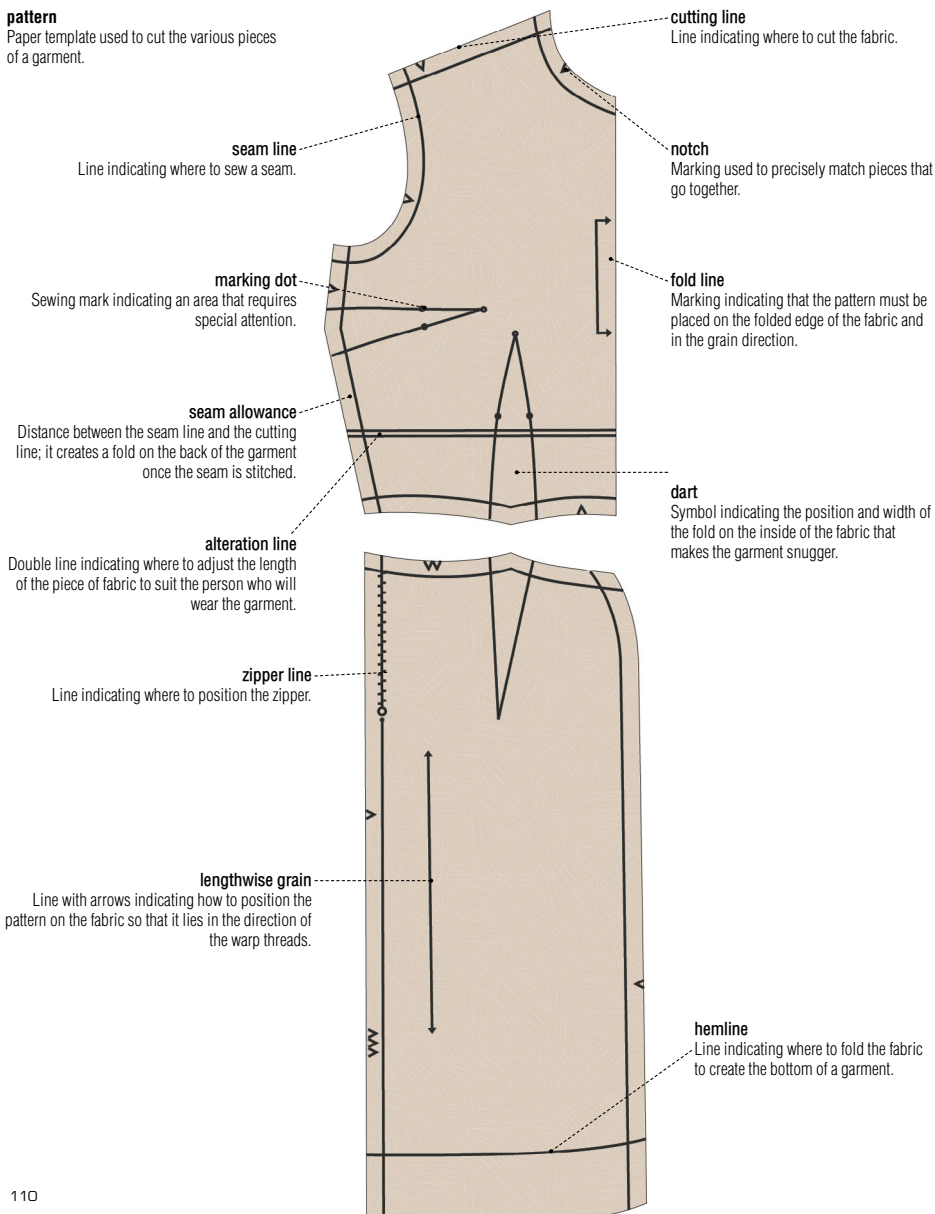
shank

Each of the elongated parts that are moved to open and close the blades.

sewing

pattern

Paper template used to cut the various pieces of a garment.



fabric structure

The way the threads of the material are put together during weaving.

**bias**

Direction of a fabric; it is diagonal to the crosswise grain and the lengthwise grain.

selvage

The finished border of a piece of fabric, woven more tightly than the piece it borders and parallel to the lengthwise grain.

lengthwise grain

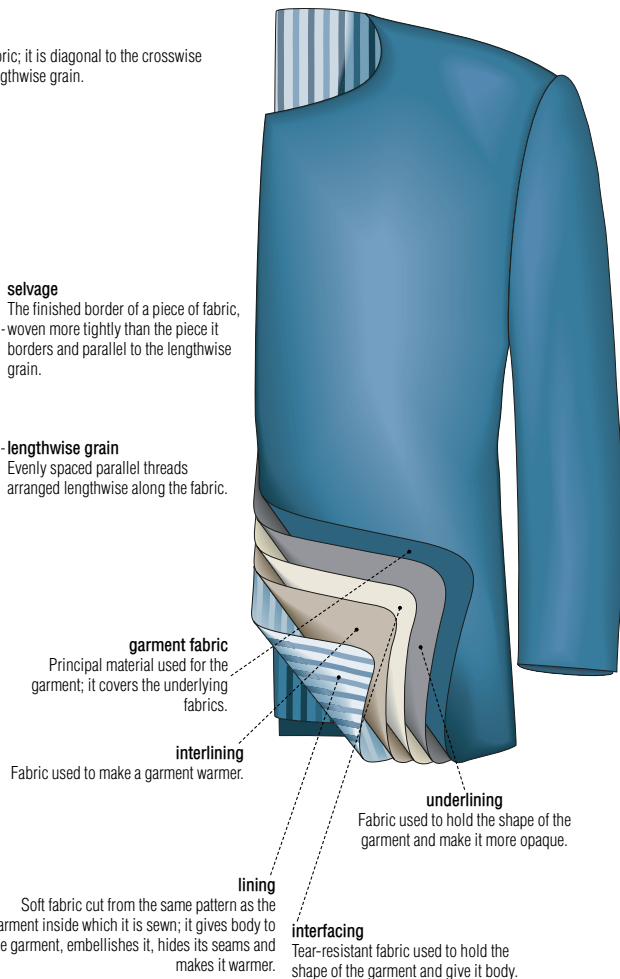
Evenly spaced parallel threads arranged lengthwise along the fabric.

crosswise grain

The threads that are passed through the lengthwise grain from one selvage to another; it is the width of the fabric.

underlying fabrics

Fabrics used to hold the shape of a garment and give it a professional finish.

**garment fabric**

Principal material used for the garment; it covers the underlying fabrics.

interfacing

Fabric used to make a garment warmer.

underlining

Fabric used to hold the shape of the garment and make it more opaque.

lining

Soft fabric cut from the same pattern as the garment inside which it is sewn; it gives body to the garment, embellishes it, hides its seams and makes it warmer.

interfacing

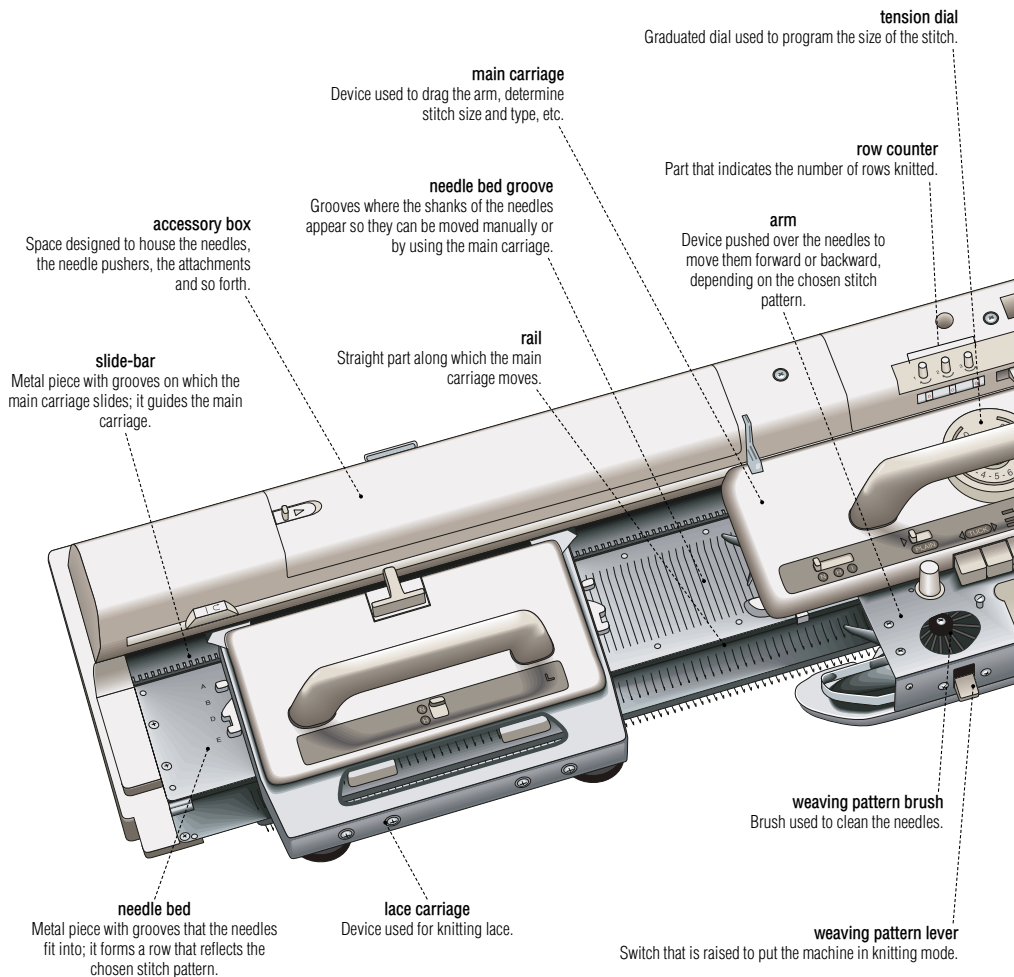
Tear-resistant fabric used to hold the shape of the garment and give it body.

knitting machine

Machine used to knit fabrics mechanically.

needle bed and carriages

Metal piece with grooves in which the needles are inserted; the carriages slide over it to create a knit.



main carriage

Device used to drag the arm, determine stitch size and type, etc.

needle bed groove

Grooves where the shanks of the needles appear so they can be moved manually or by using the main carriage.

accessory box

Space designed to house the needles, the needle pushers, the attachments and so forth.

slide-bar

Metal piece with grooves on which the main carriage slides; it guides the main carriage.

rail

Straight part along which the main carriage moves.

tension dial

Graduated dial used to program the size of the stitch.

row counter

Part that indicates the number of rows knitted.

arm

Device pushed over the needles to move them forward or backward, depending on the chosen stitch pattern.

weaving pattern brush

Brush used to clean the needles.

weaving pattern lever

Switch that is raised to put the machine in knitting mode.

lace carriage

Device used for knitting lace.

needle bed

Metal piece with grooves that the needles fit into; it forms a row that reflects the chosen stitch pattern.

carriage handle

Part used to hold and move the main carriage.

color display

Screen that posts a number corresponding to a color.

stitch pattern memory

Keys to place the stitch patterns in memory.

variation keys

Keys used to change the shape of a stitch pattern.

correction key

Key that is pressed to undo knitting.

pattern start key

Key used to repeat a pattern starting with the first row.

arm nut

Button connecting the main carriage to the arm.

stitch control buttons

Buttons used to select a type of stitch (e.g., moss stitch, stocking stitch, garter stitch).

carriage control dial

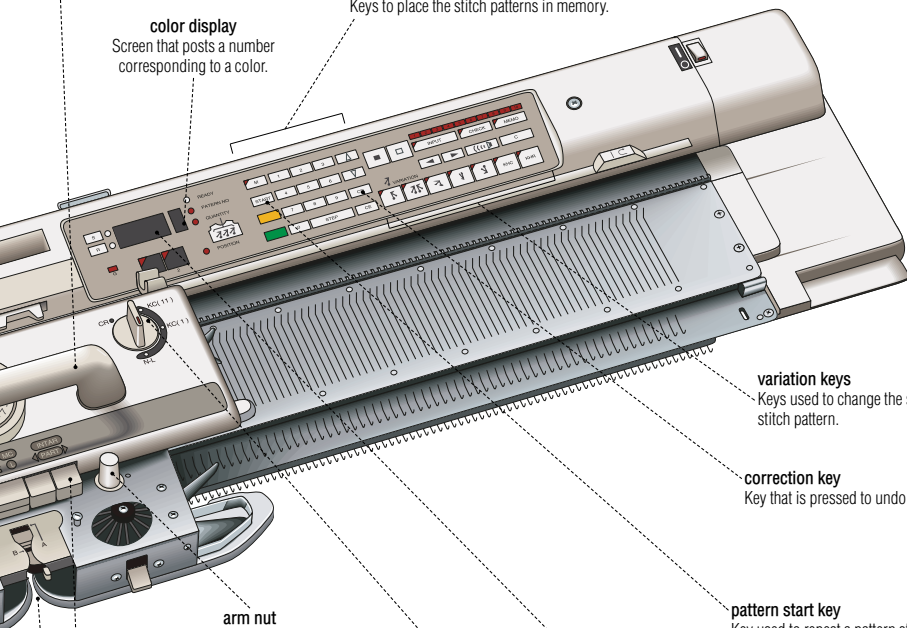
Button used to choose a type of stitch, select the needles and lift the main carriage from the needle bed.

row number display

Screen indicating the number of the next knitting row.

yarn feeder

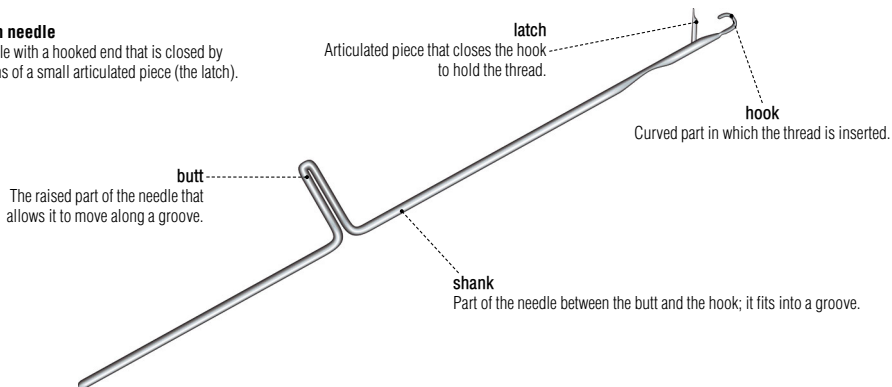
Part in which the thread is inserted.



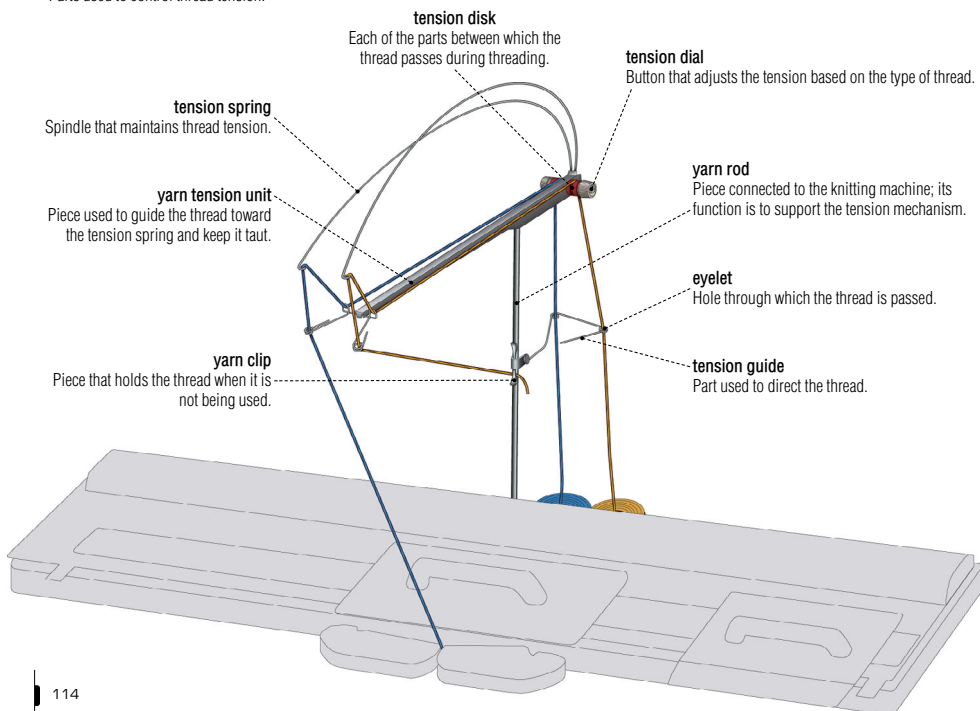
knitting machine

latch needle

Needle with a hooked end that is closed by means of a small articulated piece (the latch).

**tension block**

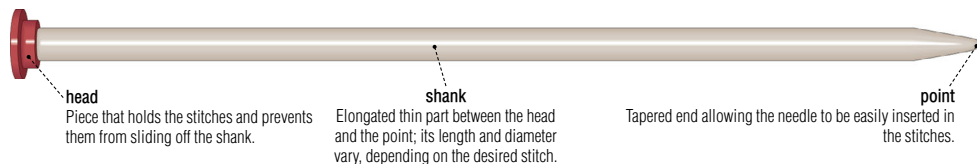
Parts used to control thread tension.



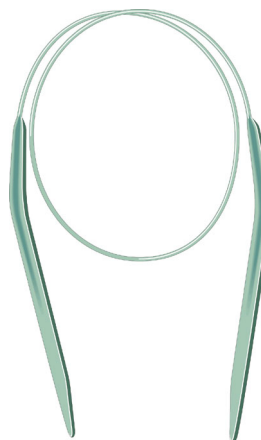
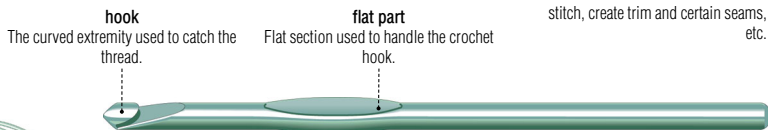
Creating fabric by using needles to form interlacing stitches.

knitting needle

Rigid cylindrical rod used in pairs to knit a piece of fabric.

**crochet hook**

Instrument used to recover a lost stitch, create trim and certain seams, etc.

**circular needle**

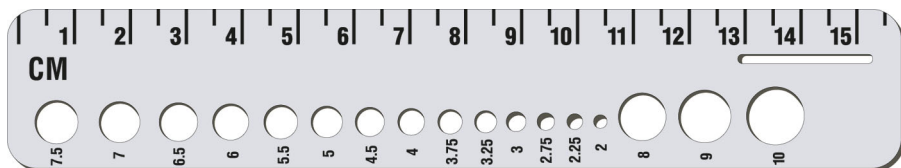
Needle used for circular knitting, for seamless pieces or flat pieces with a great number of stitches.

cast-on stitches

Loops that form the starting point of a piece of fabric.

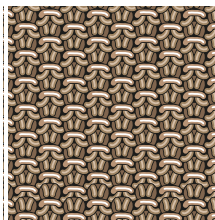
**knitting measure**

Instrument used to measure the diameter of needles and to take measurements of a work in progress.

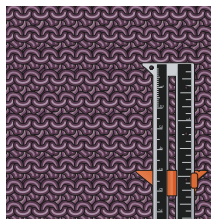


stitch patterns

Arrangement of groups of stitches in one or several rows; they are worked until they form a regularly repeated design or feature.

**moss stitch**

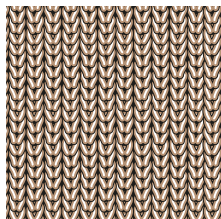
Stitch obtained by alternating a plain stitch with a purl stitch on one row, and then reversing the order on the next.

**sample**

Square sample used to calculate the number of stitches and rows on a 2 in² surface so that a consistent pattern can be established.

**rib stitch**

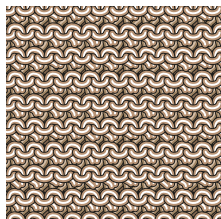
Stitch obtained by alternating plain and purl stitches and by repeating the same order on the following rows.

**stocking stitch**

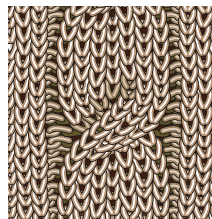
Stitch obtained by alternating a plain row with a purl row.

**basket stitch**

Stitch obtained by alternating squares composed of plain stitches with squares composed of purl stitches.

**garter stitch**

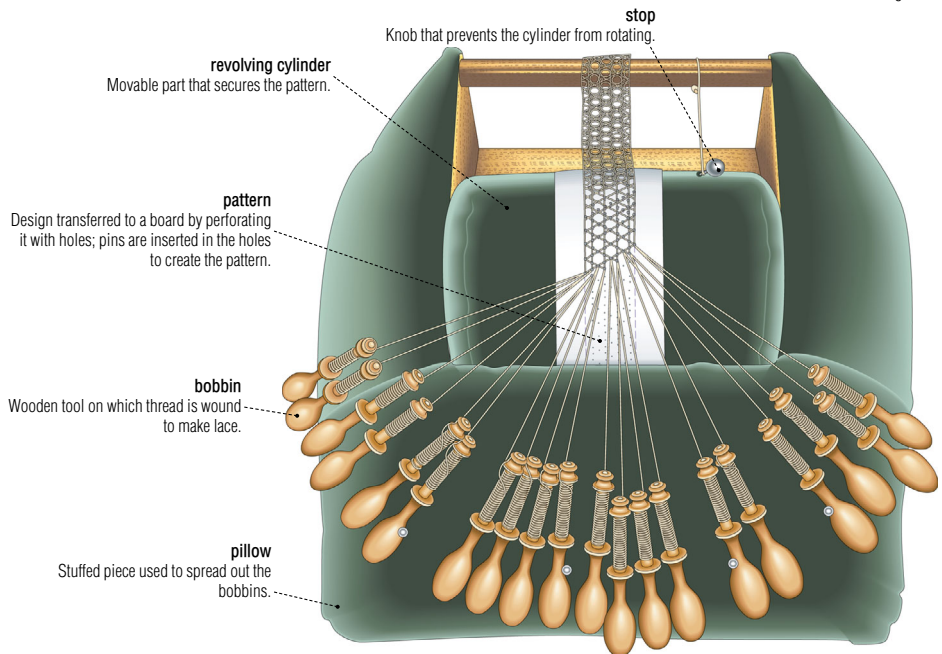
Stitch obtained by a succession of plain stitches on all the rows.

**cable stitch**

Stitch obtained by reversing the stitches on a row to form an overlap.

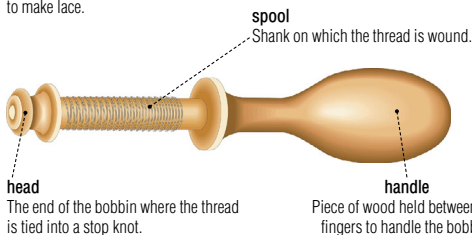
Openwork fabric created by interlacing thread on bobbins, using a pillow to secure the model to be reproduced.

pillow
Frame used for making lace.



bobbin

Wooden tool on which thread is wound to make lace.



pricker

Needle-tipped wooden tool used to perforate the pattern so that the pins can be inserted.

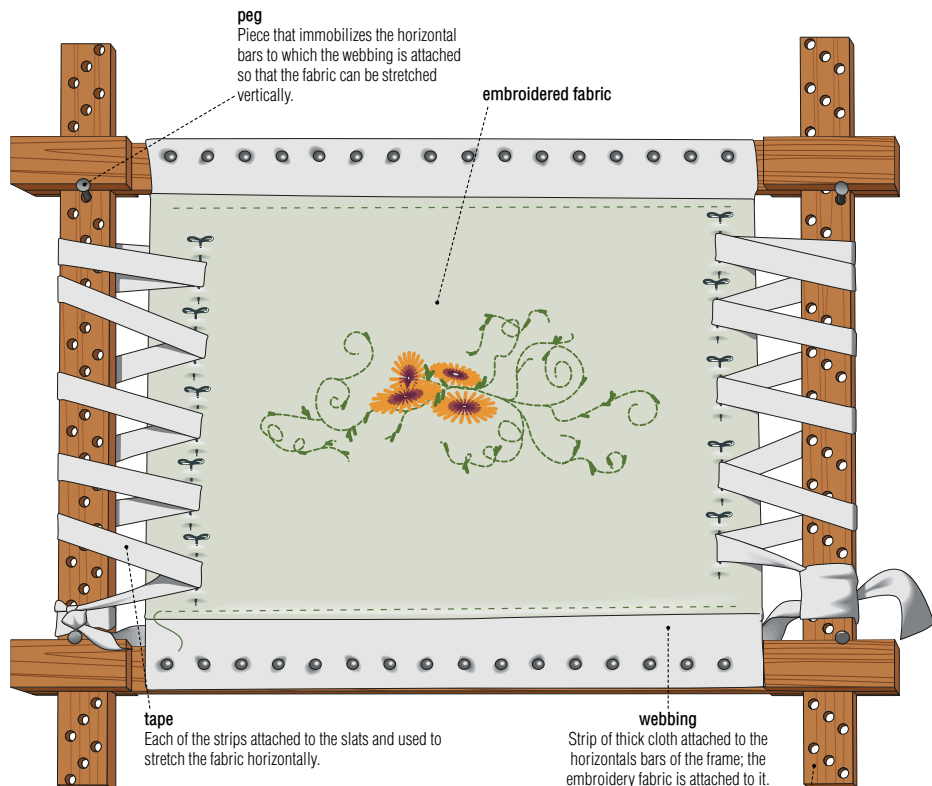


embroidery

Art of stitching designs on fabric, usually using a needle and thread.

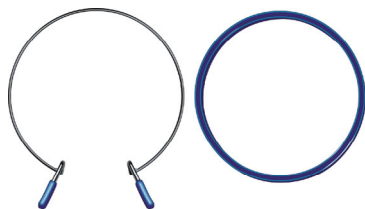
frame

Device on which embroidery fabric is stretched; it is used for work on a larger scale.



hoop

Frame consisting of two hoops; one fits inside the other and the fabric is stretched between them. The hoop is used for detail work.



stitches

There are more than 100 embroidery stitches, grouped into various categories.

cross stitches

Stitches made up of a succession of diagonal straight stitches that meet and then change direction.

**chevron stitch**

Stitch consisting of diagonal straight stitches that meet at the top and bottom of two parallel rows.

**herringbone stitch**

Stitch composed of intersecting diagonal straight stitches following two parallel lines.

loop stitches

Stitches forming an open or closed loop.

**chain stitch**

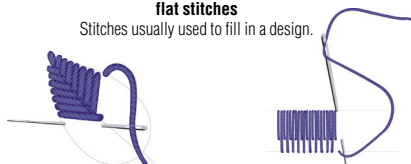
Stitch created by forming closed loops that are repeated like the links in a chain.

**feather stitch**

Stitch created by forming successive open loops, linked or unlinked.

flat stitches

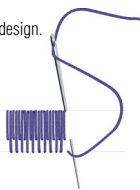
Stitches usually used to fill in a design.

**fishbone stitch**

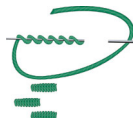
Oblique stitch alternately arranged on the left and right of an imaginary axis.

long and short stitch

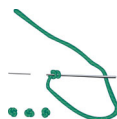
Stitch consisting of overlapping rows of long and short stitches to cover a surface.

**knot stitches**

Stitches created by winding the thread around the needle.

**bullion stitch**

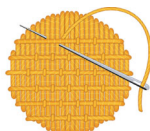
Stitch created by rolling the thread several times around the needle and reinserting the needle a little farther on to create a line of thread.

**French knot stitch**

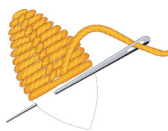
Stitch created by rolling the thread two or three times around the needle and reinserting it very close to the original point of insertion to create a cluster.

couched stitches

Stitches used to fill in and give relief to a design.

**Oriental couching stitch**

Vertical stitches are crossed with horizontal lines held together by isolated stitches staggered from one row to the next.

**Romanian couching stitch**

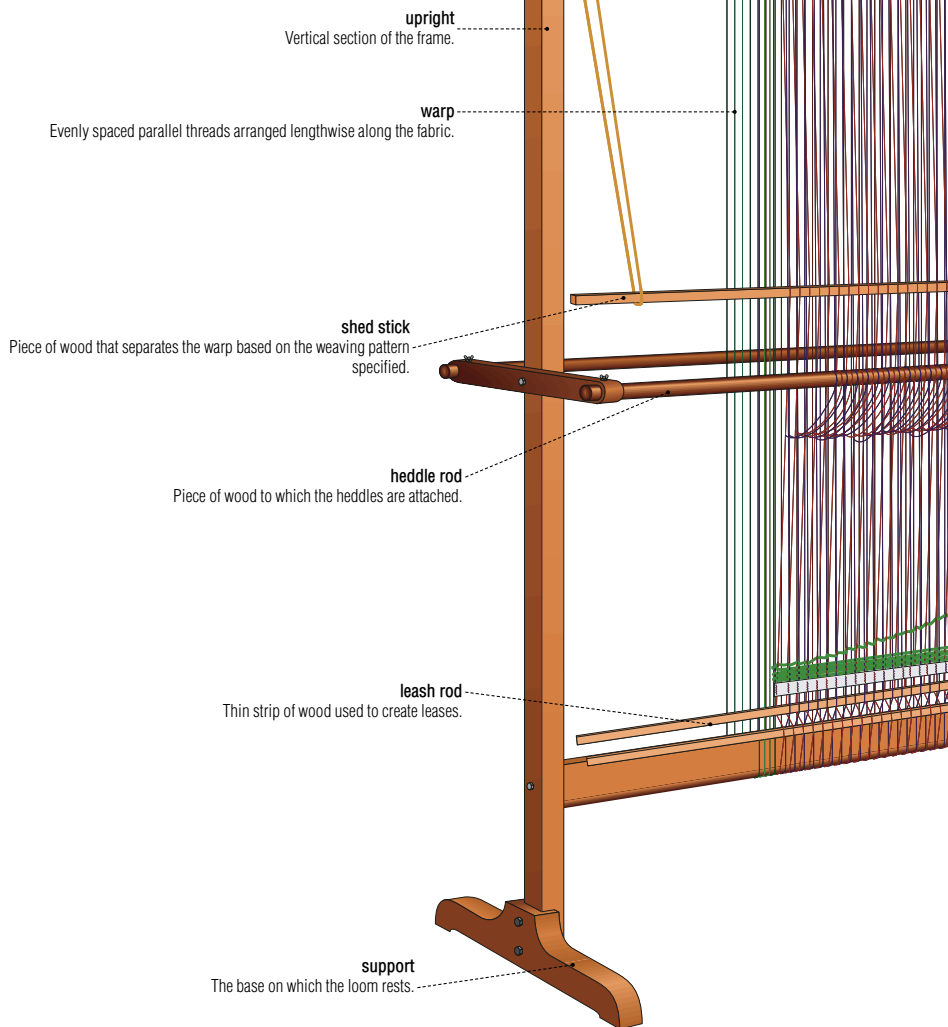
A stitch forms the base of the embroidery over the entire width of the line, and an angled or vertical stitch covers the center.

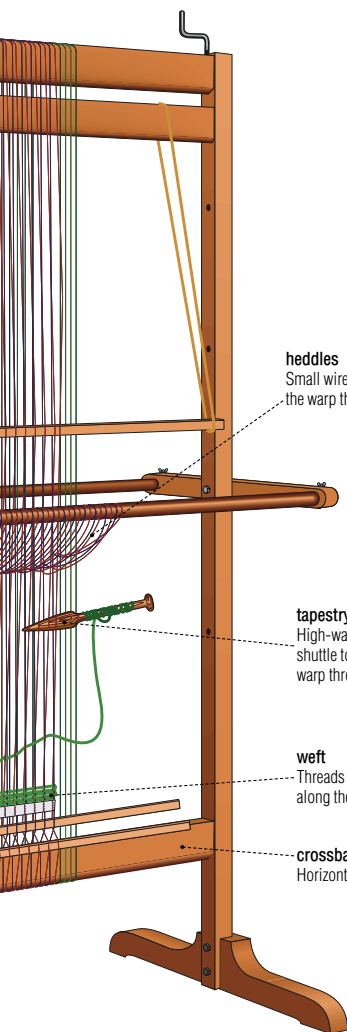
weaving

Threads (warp and weft) interlaced at right angles to form cloth.

high warp loom

Loom on which the warp threads are arranged vertically.



**heddles**

Small wires with an eye through which the warp thread passes.

tapestry bobbin

High-warp tapestry instrument used as a shuttle to introduce the weft between the warp threads.

weft

Threads woven across the warp thread, along the width direction of the fabric.

crossbar

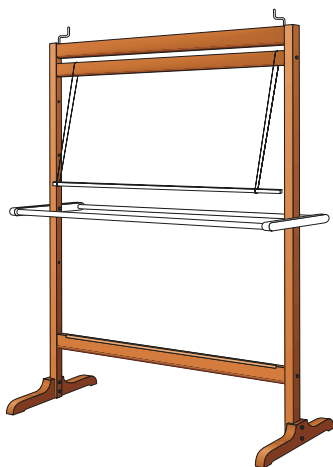
Horizontal section of the frame.

**tapestry bobbin**

High-warp tapestry instrument used as a shuttle to introduce the weft between the warp threads.

**comb**

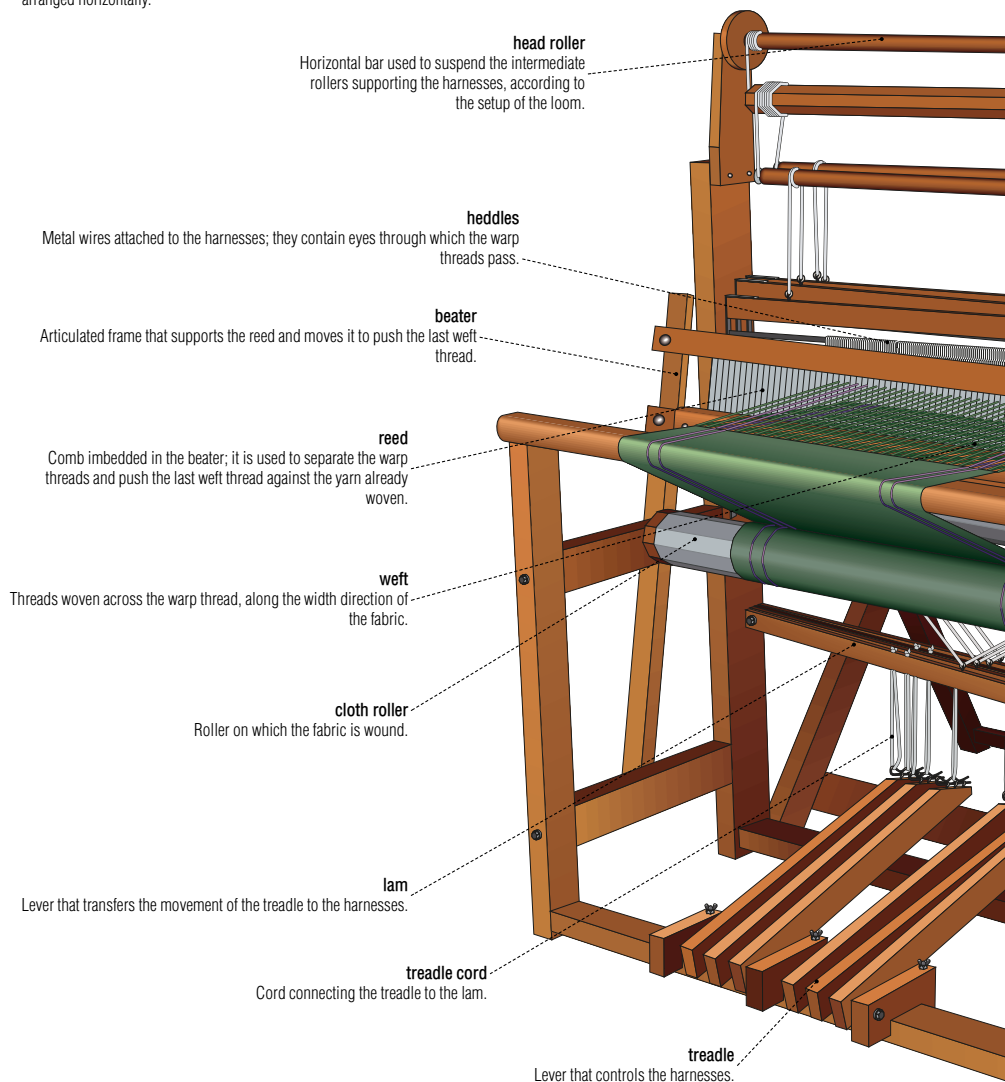
Instrument used to push the last weft thread against the yarn already woven.

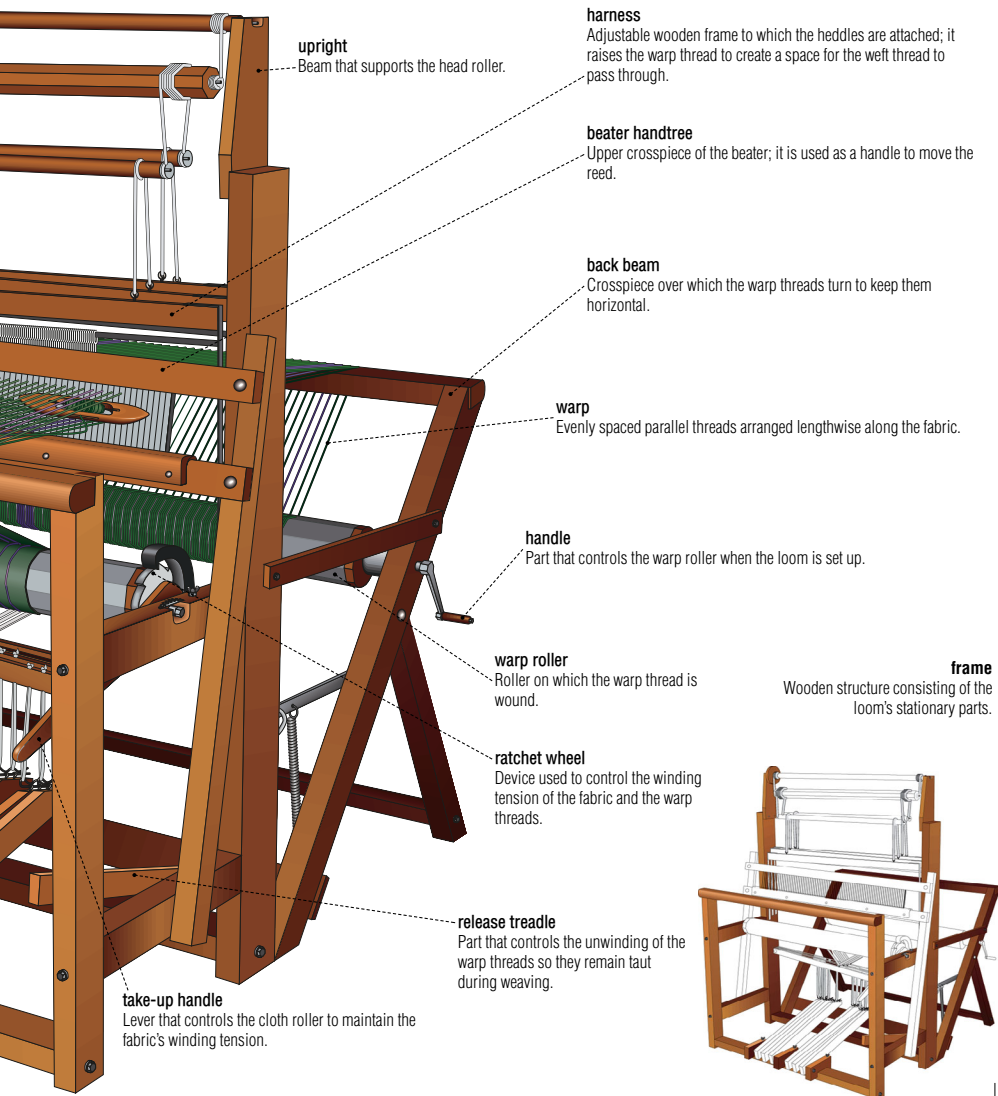
**vertical frame**

Wooden structure consisting of the loom's stationary parts.

low warp loom

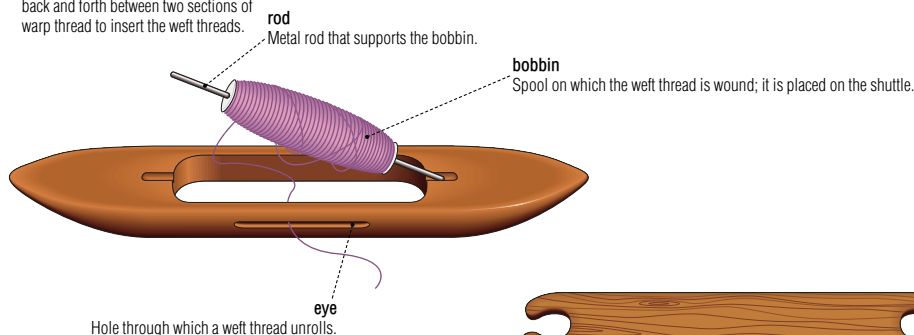
Loom on which the warp threads are arranged horizontally.



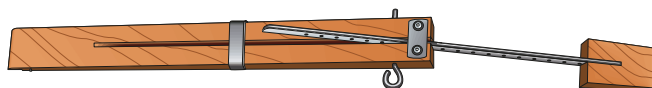


shuttle

Weaving instrument that is pushed back and forth between two sections of warp thread to insert the weft threads.

**flat shuttle**

Wooden plate on which the weft thread is wound; it replaces the shuttle when the space between the layers of warp threads is too narrow.

**temple**

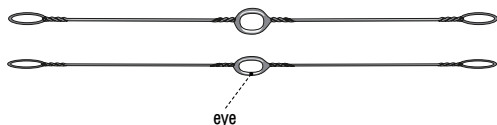
Instrument that maintains a constant fabric width during weaving.

**reed hooks**

Hook used to pass the warp thread through the tooth of a comb or the eye of a heddle.

heddles

Metal wires that attach to the blade; they have an eye through which a warp thread passes.



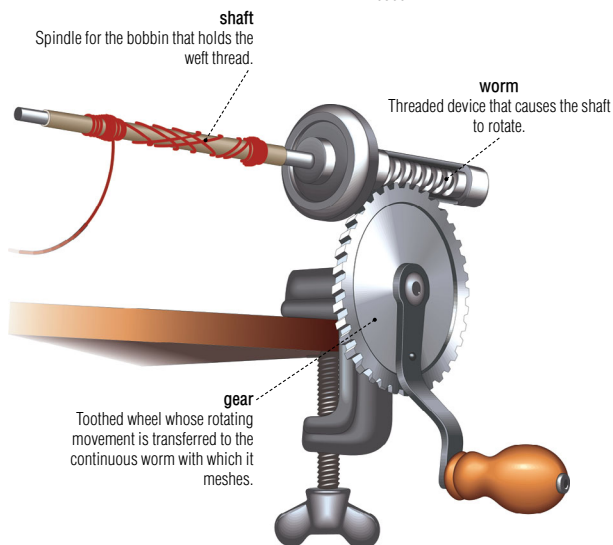
Hole through which a warp thread unwinds.

accessories

The tools used to facilitate various weaving processes.

bobbin winder

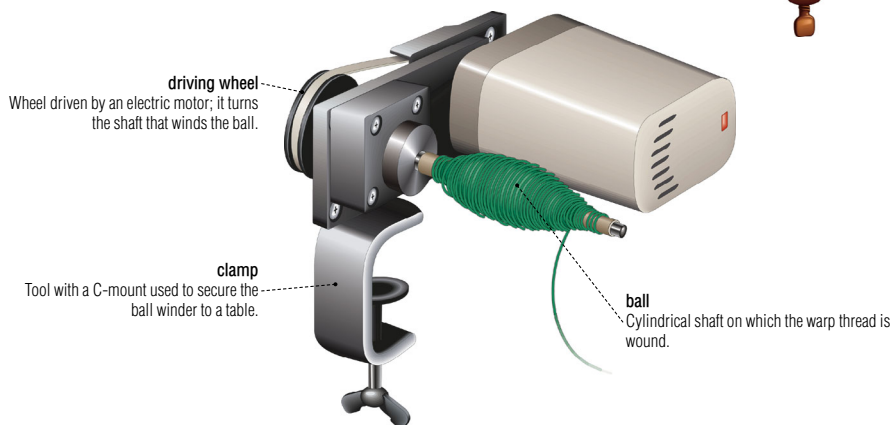
Device used to wind weft thread onto a bobbin.

**swift**

Device composed of articulated slats on which warp or weft threads are disentangled, making it easier to unwind them afterward.

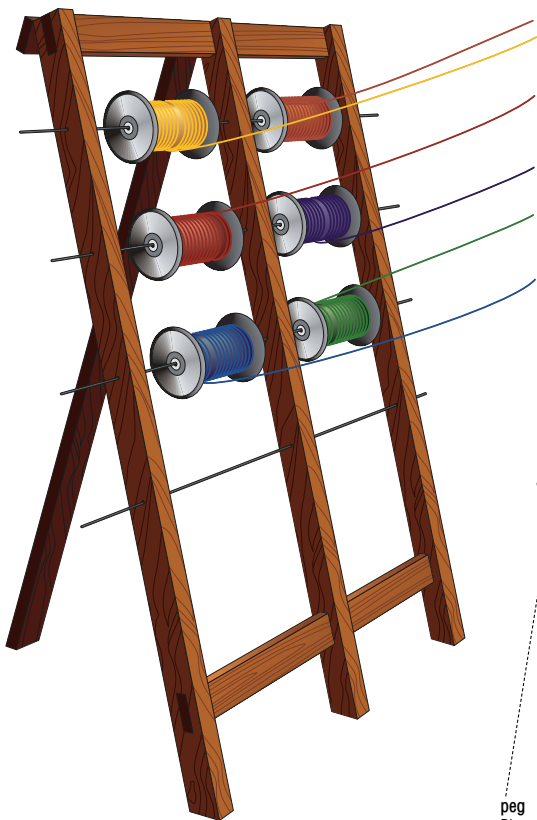
**ball winder**

Tool used to wind thread onto a ball.

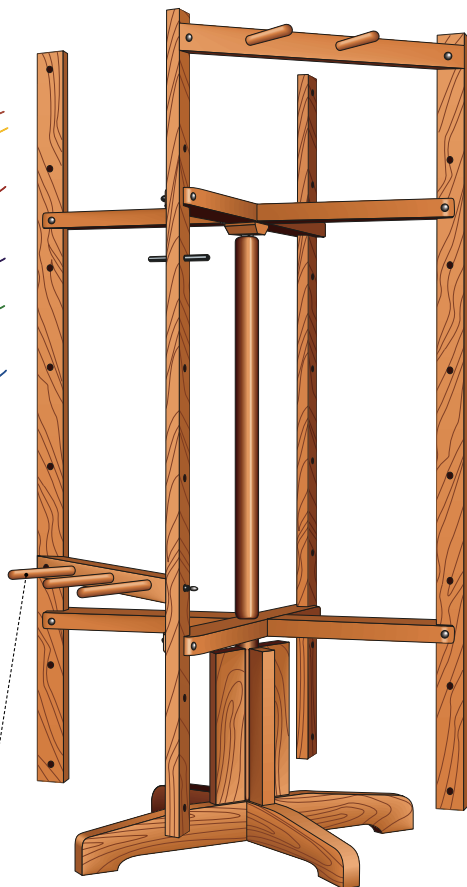


spool rack

Wooden frame with crosswise rods used to unwind spools of warp thread in various colors.

**warping frame**

Device on which the warp threads are arranged in parallel hanks; this makes it easier to wind them onto the warp roller.

**peg**

Piece of wood used to create leases.

weft thread
Threads that run across the warp threads, in the width direction of the fabric.

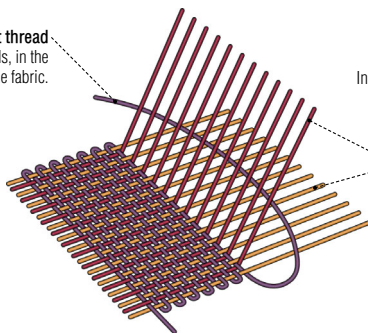
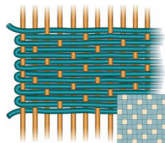


diagram of weaving principle
In home weaving, the warp is separated into two or more sections between which the weft is inserted. Industrial weaving is based on a similar principle but is more complex.

warp threads
Evenly spaced parallel threads arranged lengthwise along the fabric.

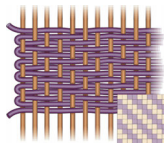
basic weaves

The principal types of weave.



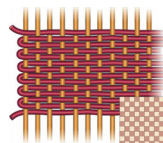
satin weave

Widely spaced weave forming a smooth surface; here, the weft thread passes over four warp threads and then under one.



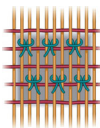
twill weave

Mesh forming oblique lines in the fabric; here, the weft thread passes over and then under two warp threads, and is staggered by one thread per row.



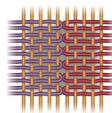
plain weave

Mesh forming a check pattern in the fabric; the weft thread passes over and under a warp thread, and is staggered by one thread per row.



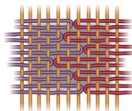
knot

Woolen yarn wound around two warp threads; its ends form the piles on a carpet.



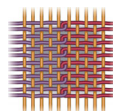
slit

The space where the thread colors change; weft threads and warp threads interlock and then return to their respective zones.



hatching

Technique used to mix colors: a weft thread enters a different color zone, interlocks with a warp thread and comes back to the original color zone.



interlock

Section where the colors change; two weft threads of a different color interlock and then return to their respective zones.

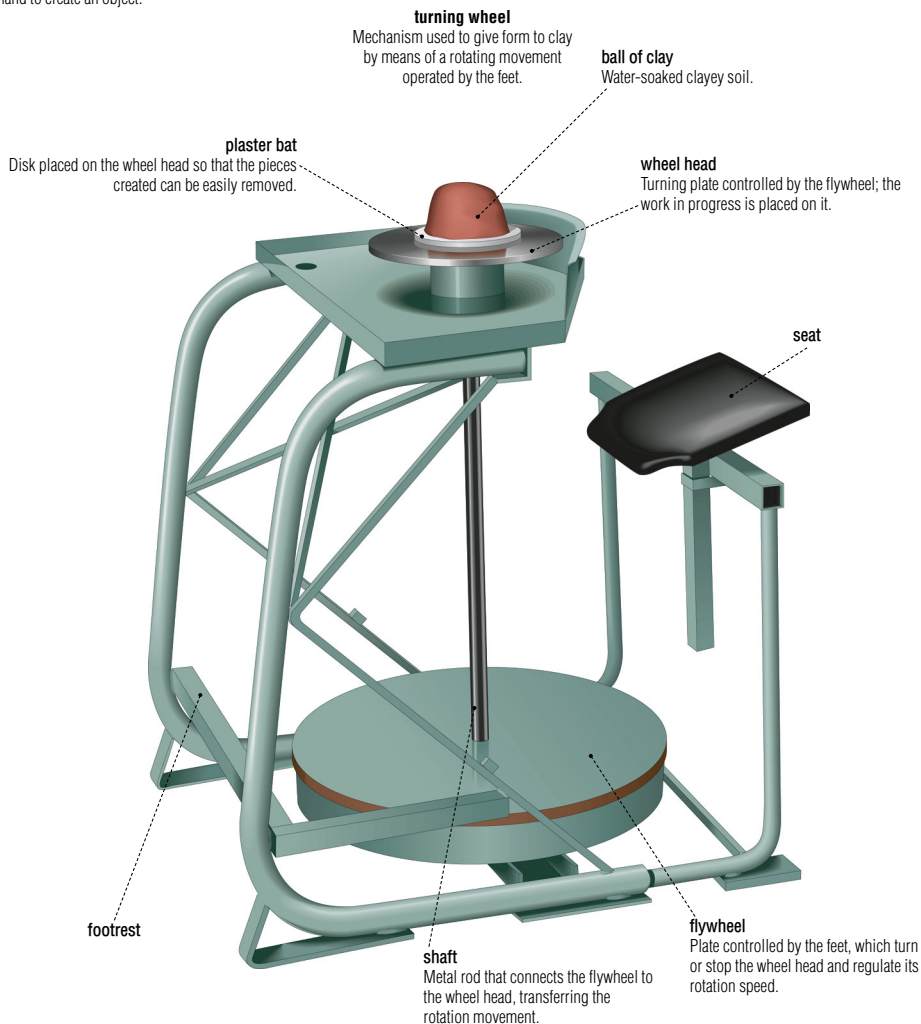
other techniques

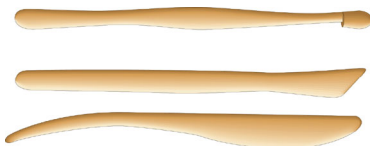
pottery

Art of creating objects from a clay paste, which is shaped by hand and cooked in an oven.

turning

Process of using a turning wheel to shape clay by hand to create an object.



**wooden modeling tools**

Tools used to decorate and smooth clay.

**needle tool**

Tool used to pierce clay and carve designs in it.

**fettling knife**

Tool used to cut and dig into clay.

**trimming tool**

Tool used to dig into clay and create designs in it.

pyrometric cone
Small earthen pyramid with a known melting point; it is used to determine the temperature of the firing chamber.

**ribs**

Wooden, metal or plastic tool used to smooth the surface of an object during turning.

**still**

Stand on which an object is placed during firing to evenly distribute the heat around it.

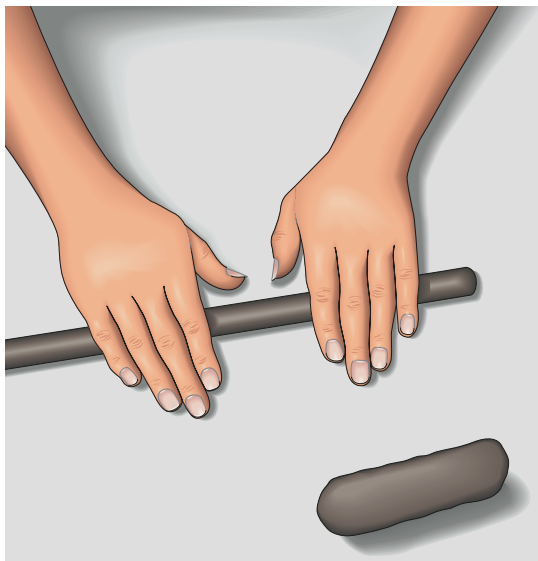
**banding wheel**

Hand-controlled turning plate used for processes that do not require continuous rotation speed, in particular for decorating a turned piece.

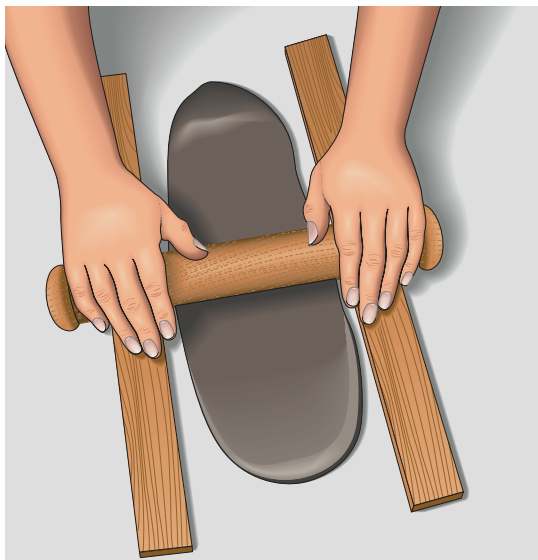
pottery

coiling

Process by which long rolls of clay are stacked and glued to create pieces without the use of a turning wheel.

**slab building**

Process by which clay is flattened with a roller, cut into slabs and then gathered together.

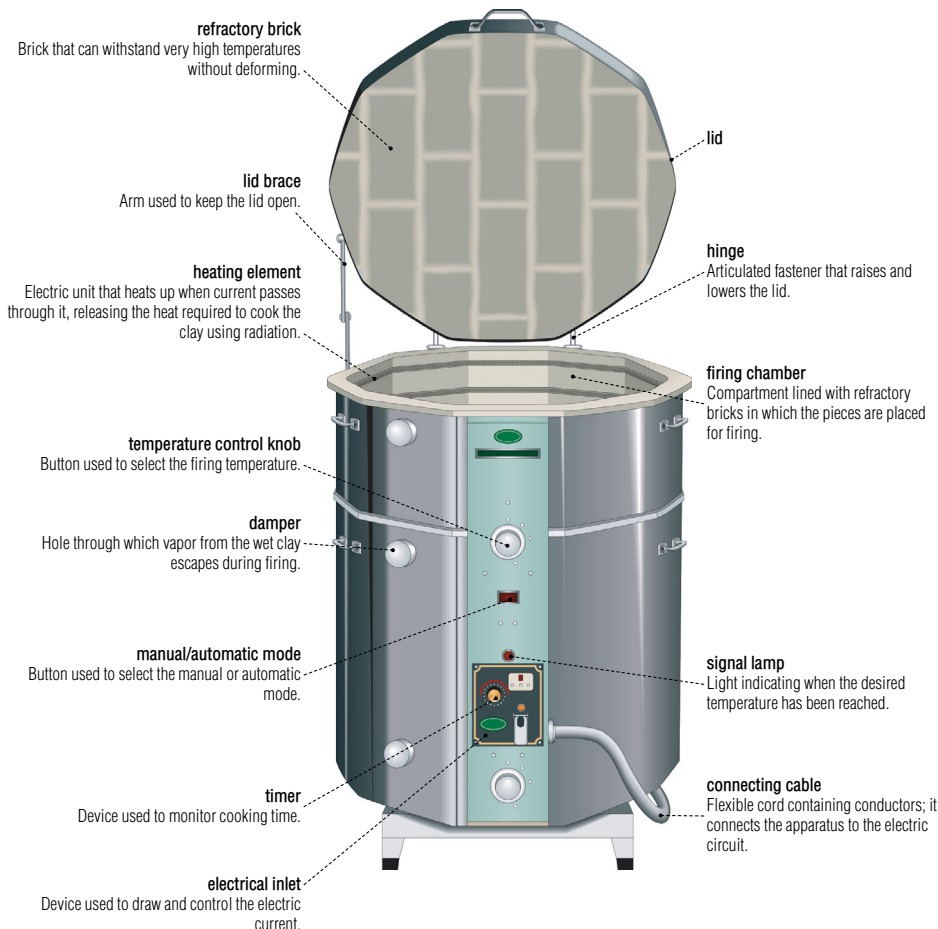


firing

Process by which clay is hardened by heating.

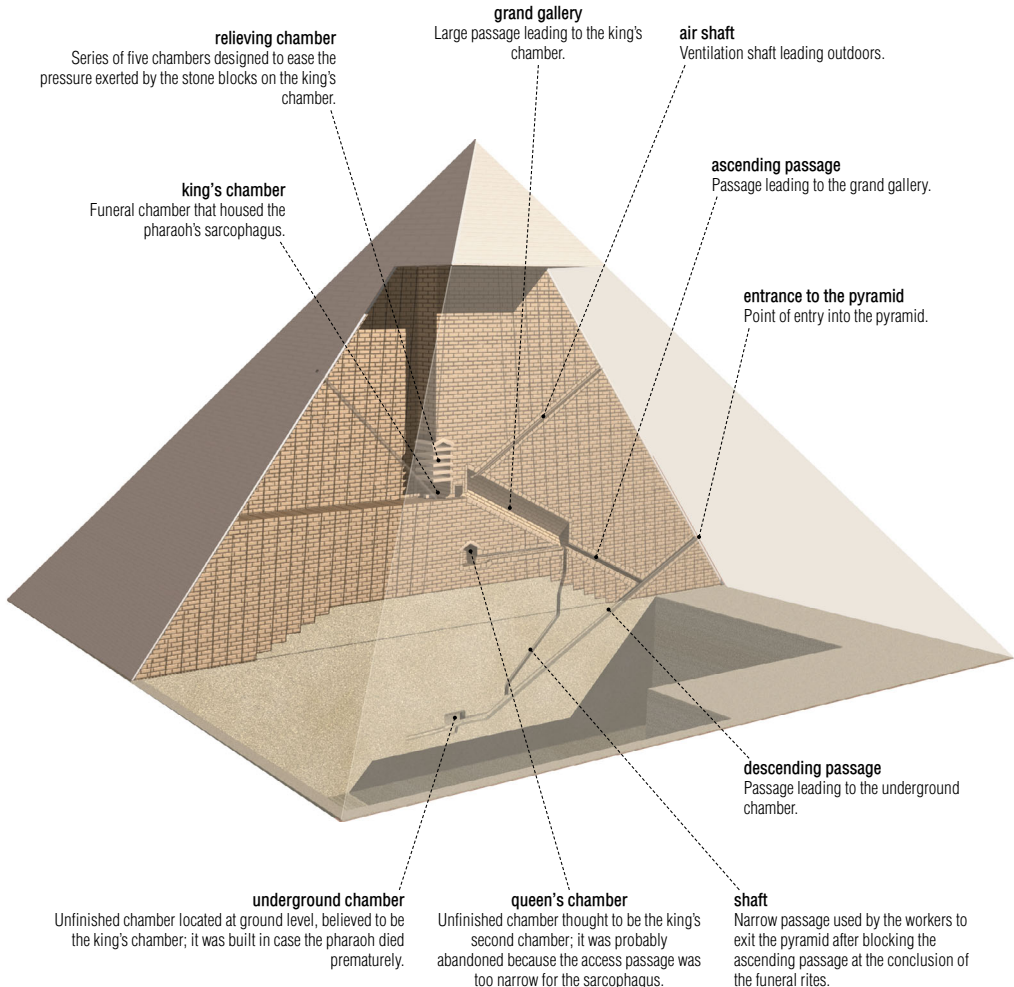
electric kiln

Apparatus that uses radiation to produce heat; it is used for firing clay.

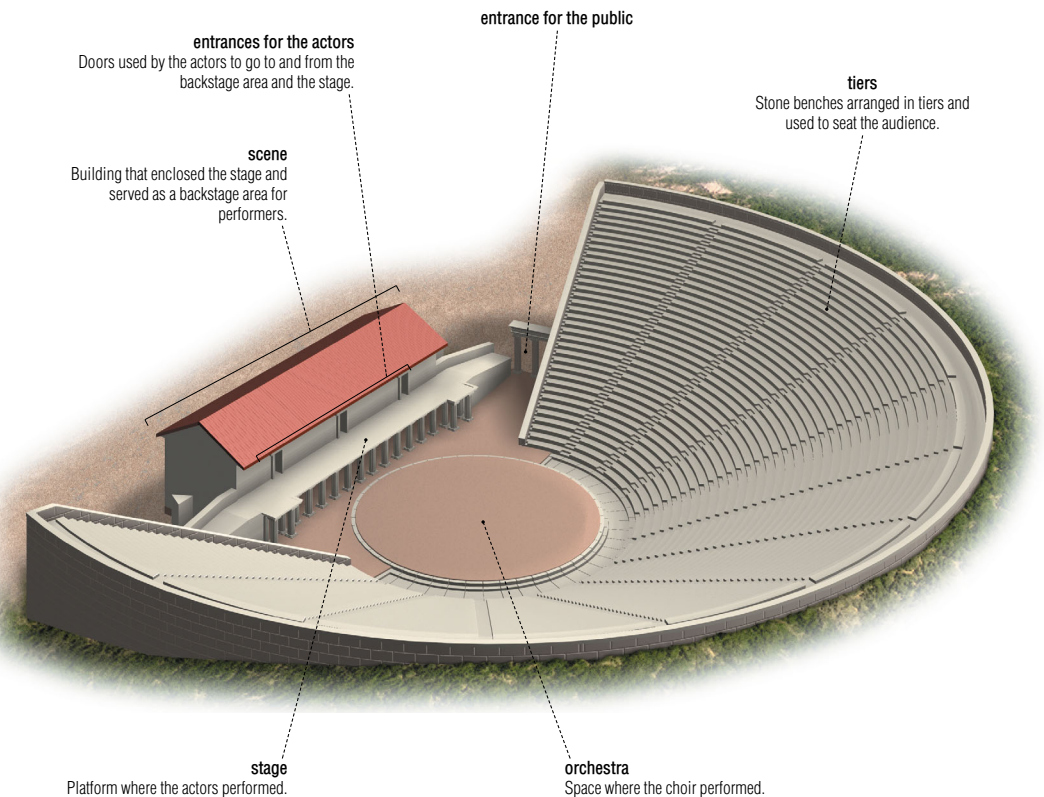


pyramid

Construction with a square base and four triangular faces; it served as a tomb for the pharaohs of ancient Egypt, represented here by the pyramid of Cheops.

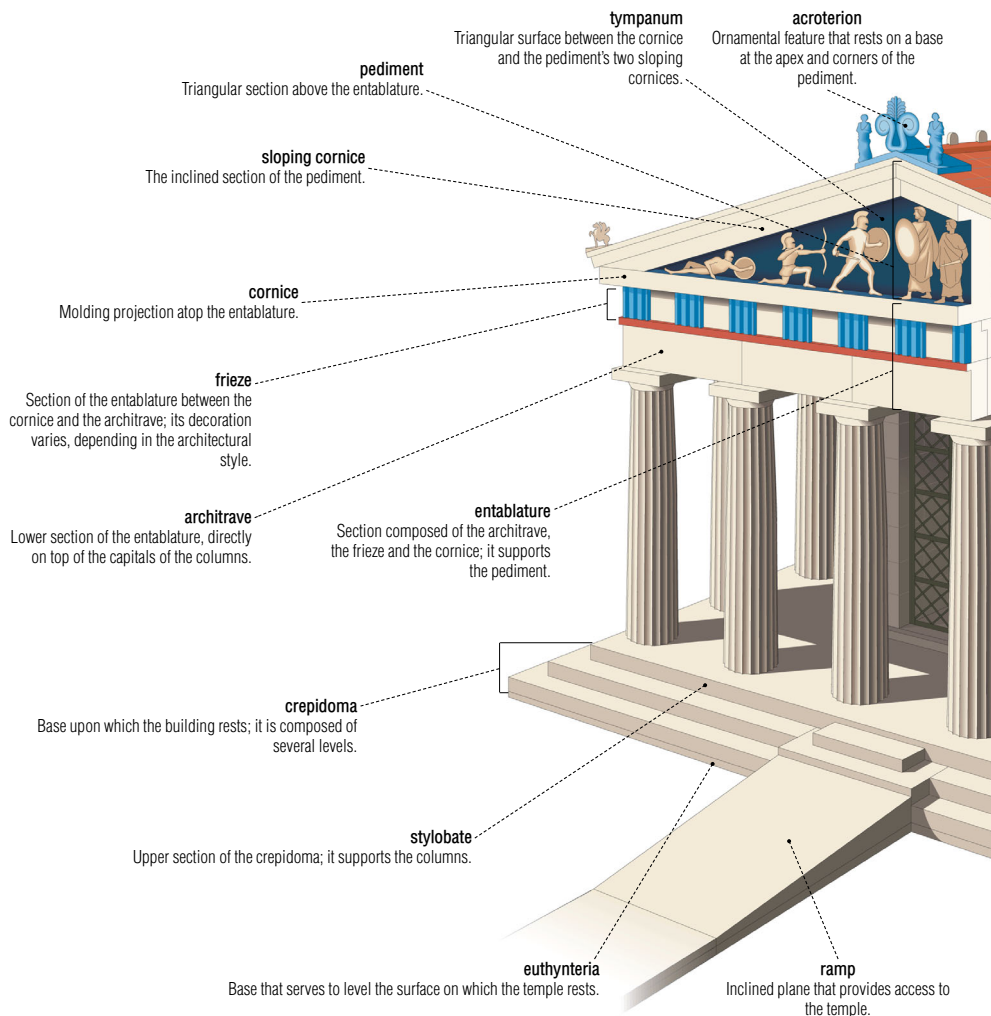


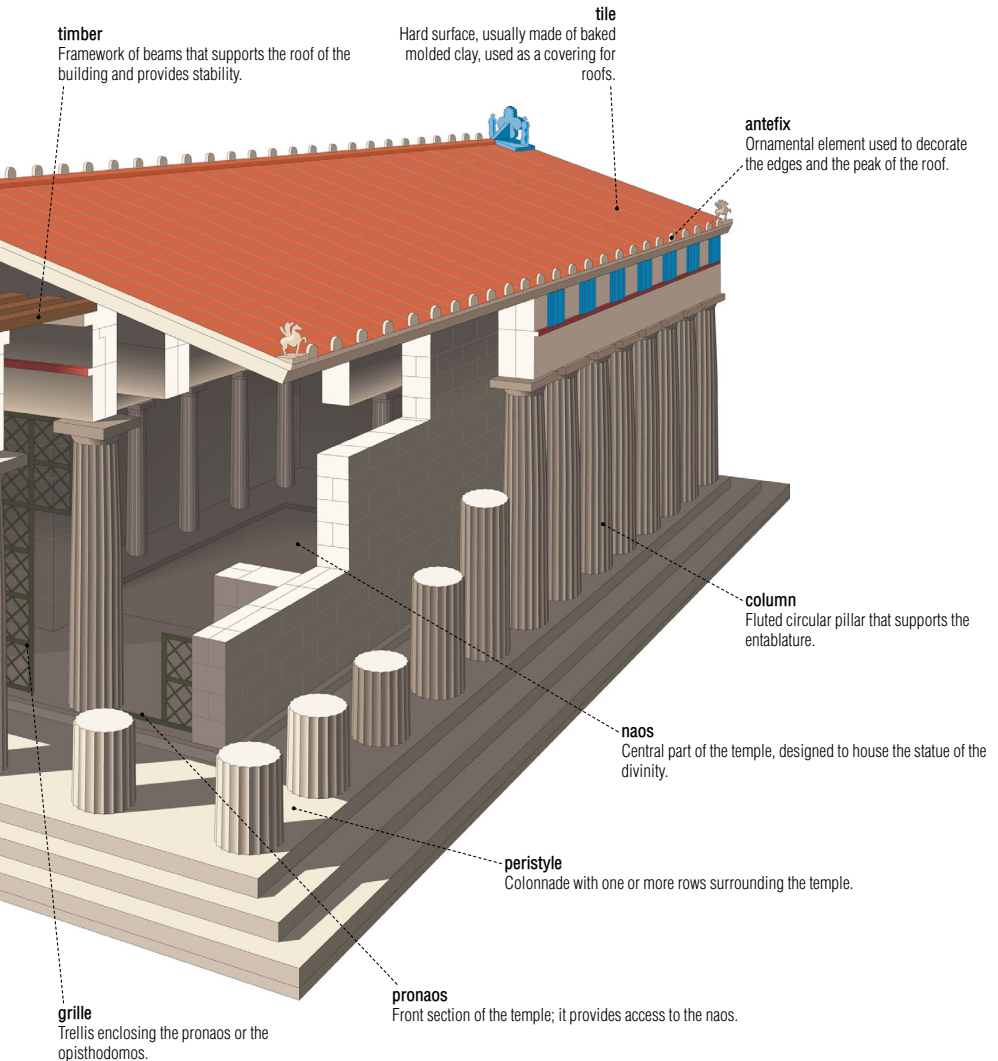
Open-air structure, often built on a hillside, where theatrical performances were staged during antiquity.

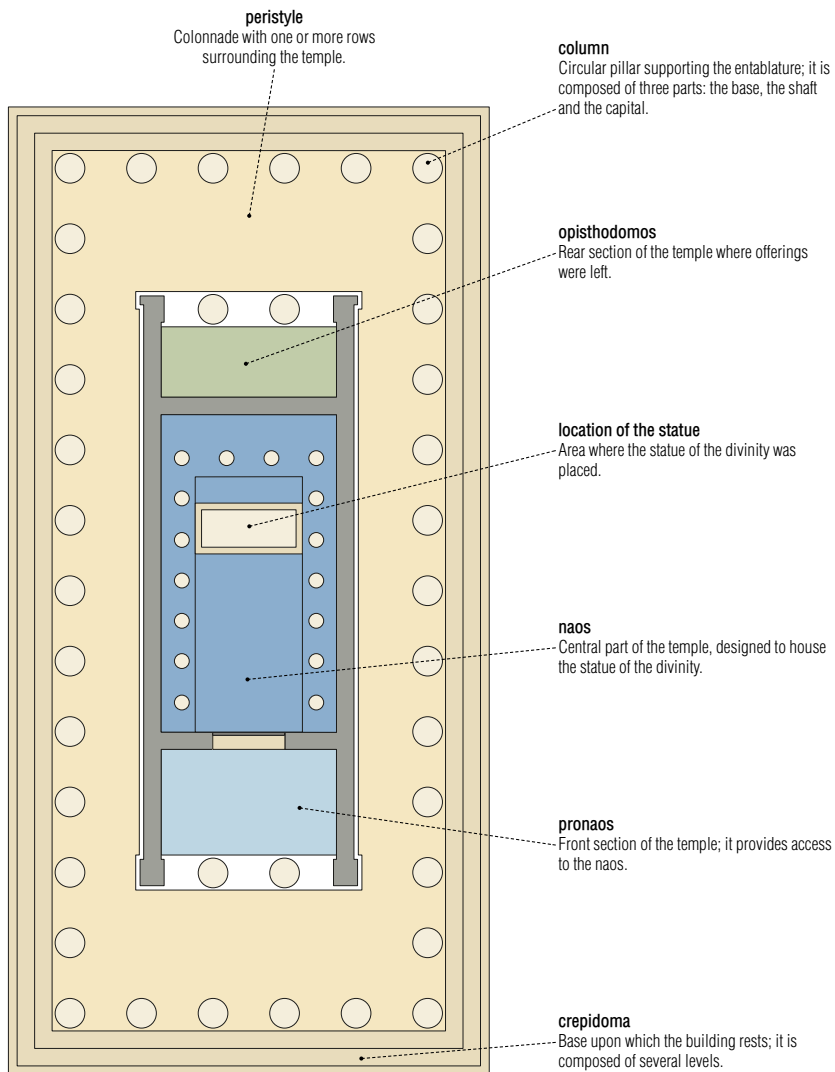


Greek temple

Building that, in antiquity, was dedicated to a divinity and featured a statue of that divinity.



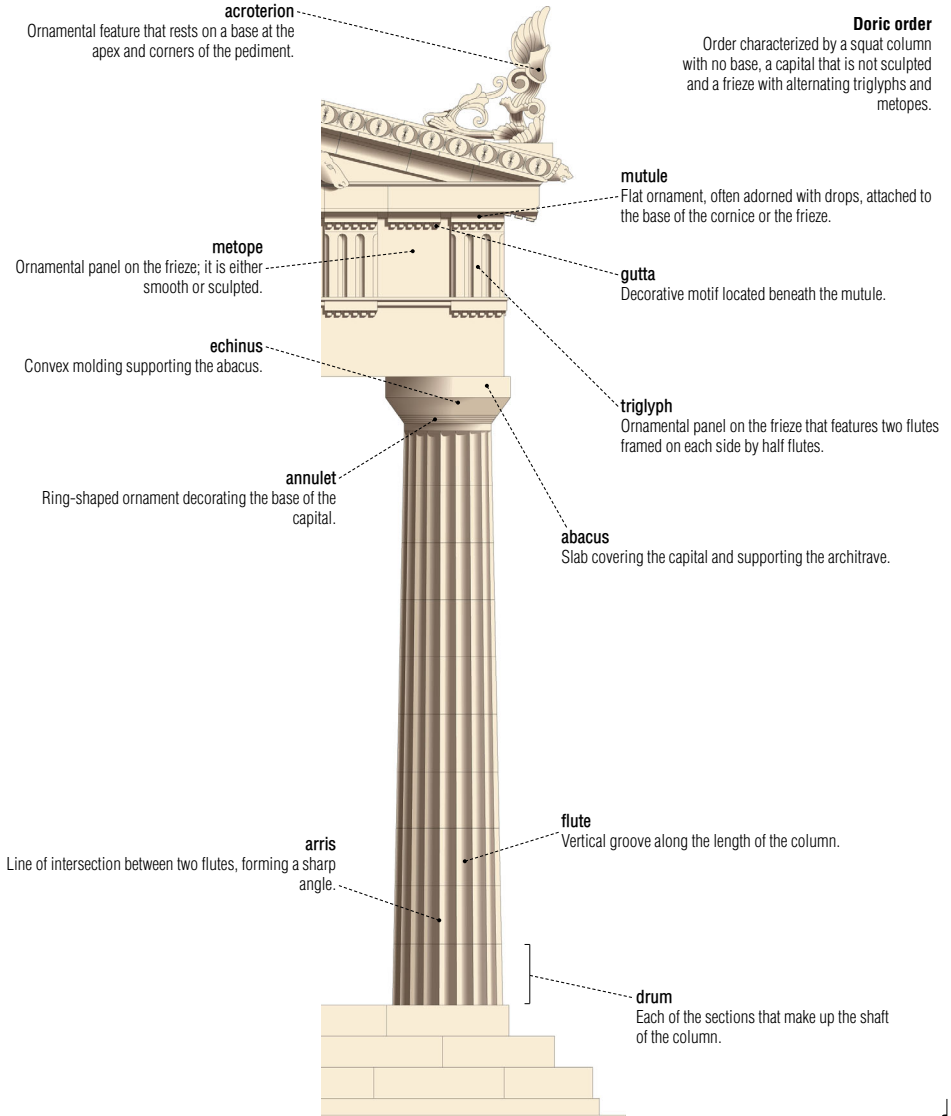




The architectural styles, or orders, of ancient Greece are distinguished by rules of proportion that govern a building's columns, entablature and pediment.

Doric order

Order characterized by a squat column with no base, a capital that is not sculpted and a frieze with alternating triglyphs and metopes.



architectural styles

ionic order

Order characterized by soaring columns with molded bases, capitals with volutes and a continuously sculpted frieze.

tympantum
Triangular surface between the cornice and the pediment's two sloping cornices.

dentil
Rectangular ornament in relief.

abacus
Slab covering the capital and supporting the architrave.

flute
Vertical groove along the length of the column.

torus
Molding in the shape of a large ring, located at the base of the column.

scotia
Concave molding located at the base of the column.

sima
Decorated molding on the face of the pediment's sloping cornice.

cornice
Molding projection on top of the entablature. In the Ionic order, it is decorated with a series of dentils.

frieze
Section of the entablature between the cornice and the architrave. In the Ionic order, it is decorated with scenes sculpted in relief.

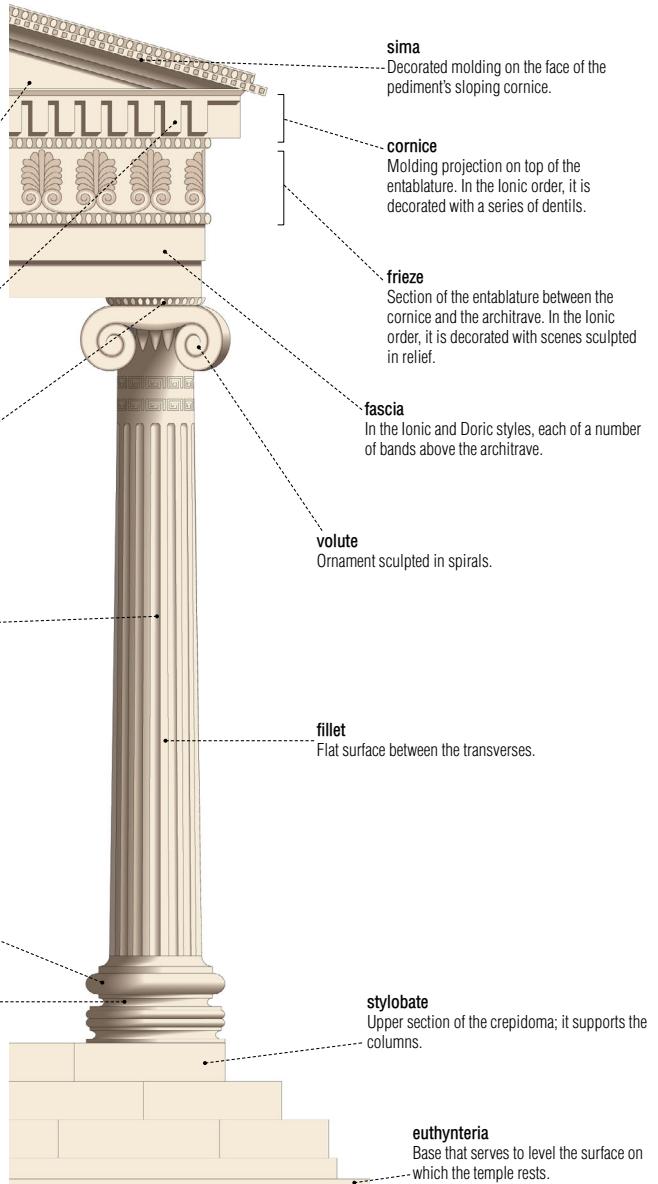
fascia
In the Ionic and Doric styles, each of a number of bands above the architrave.

volute
Ornament sculpted in spirals.

fillet
Flat surface between the transverse.

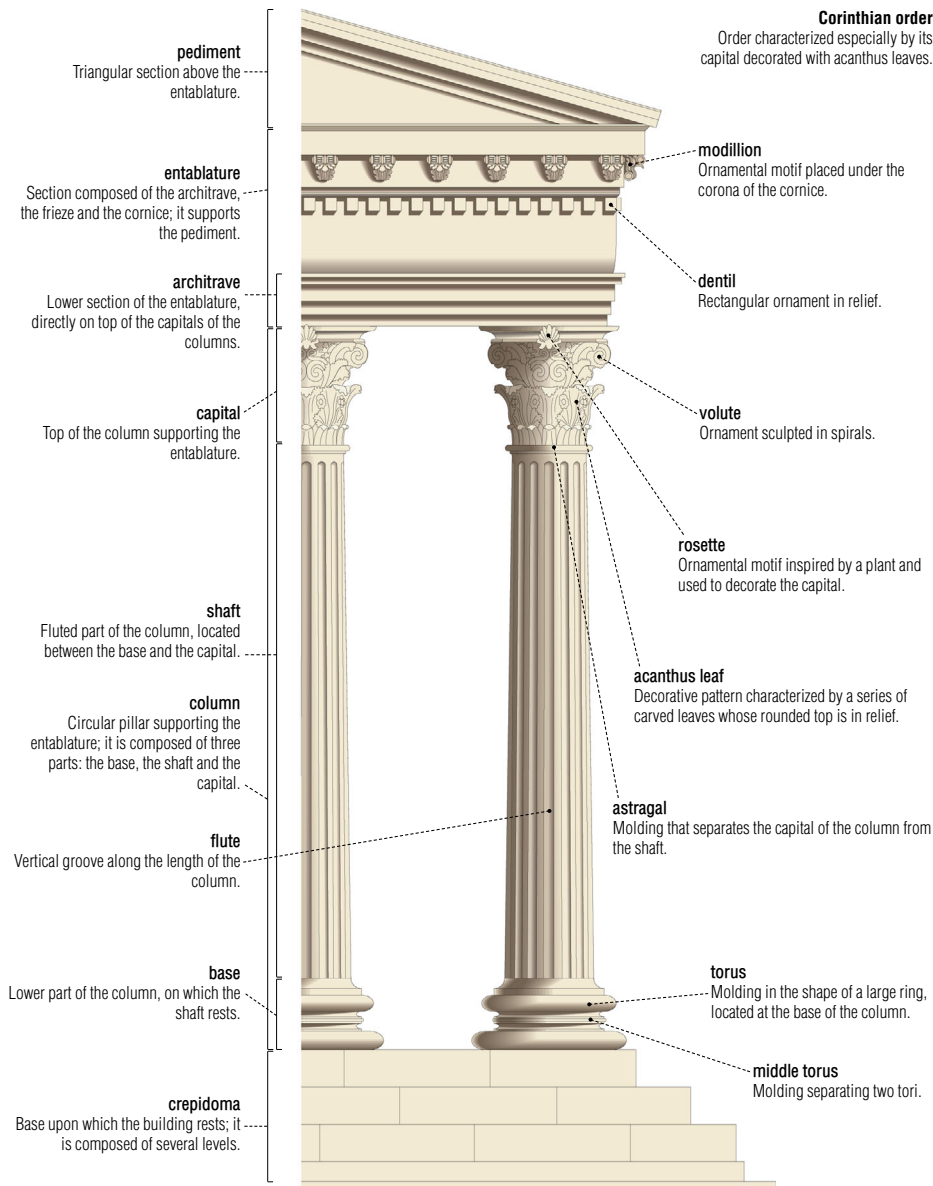
stylobate
Upper section of the crepidoma; it supports the columns.

euthynteria
Base that serves to level the surface on which the temple rests.



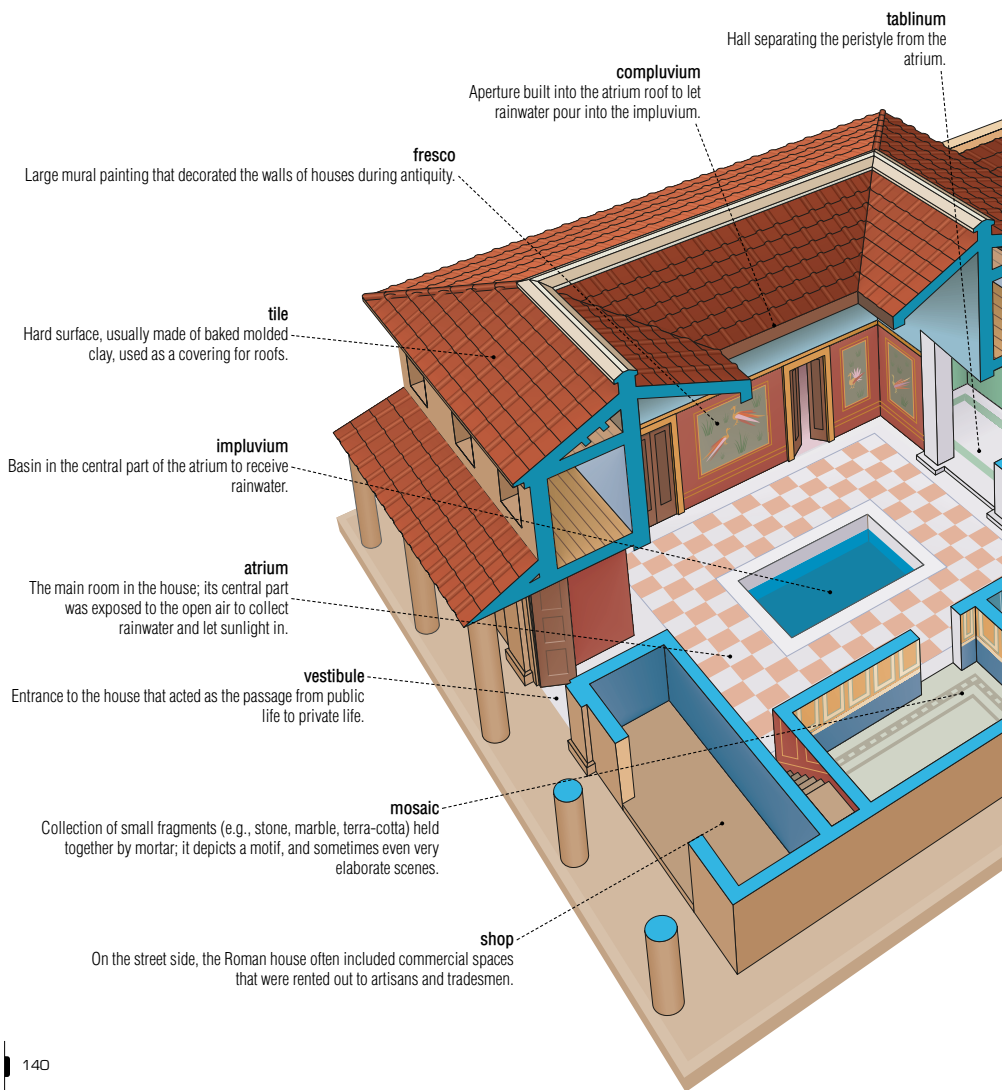
Corinthian order

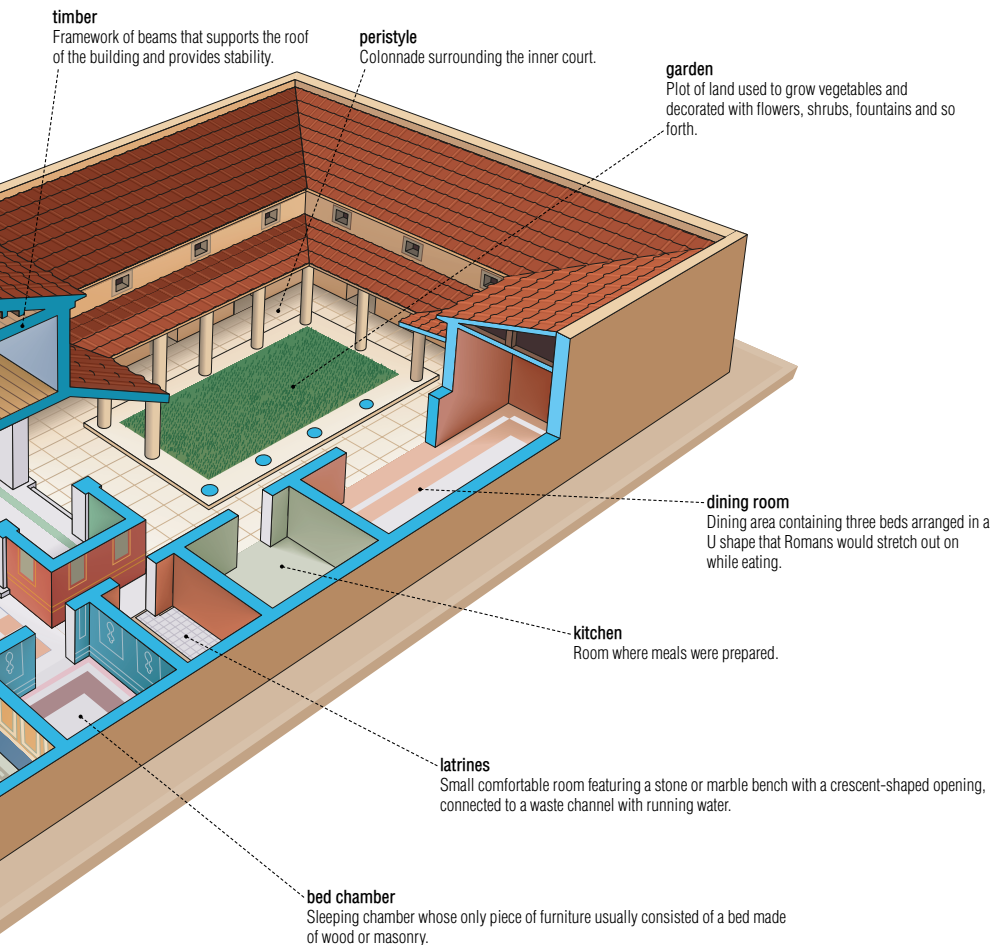
Order characterized especially by its capital decorated with acanthus leaves.



Roman house

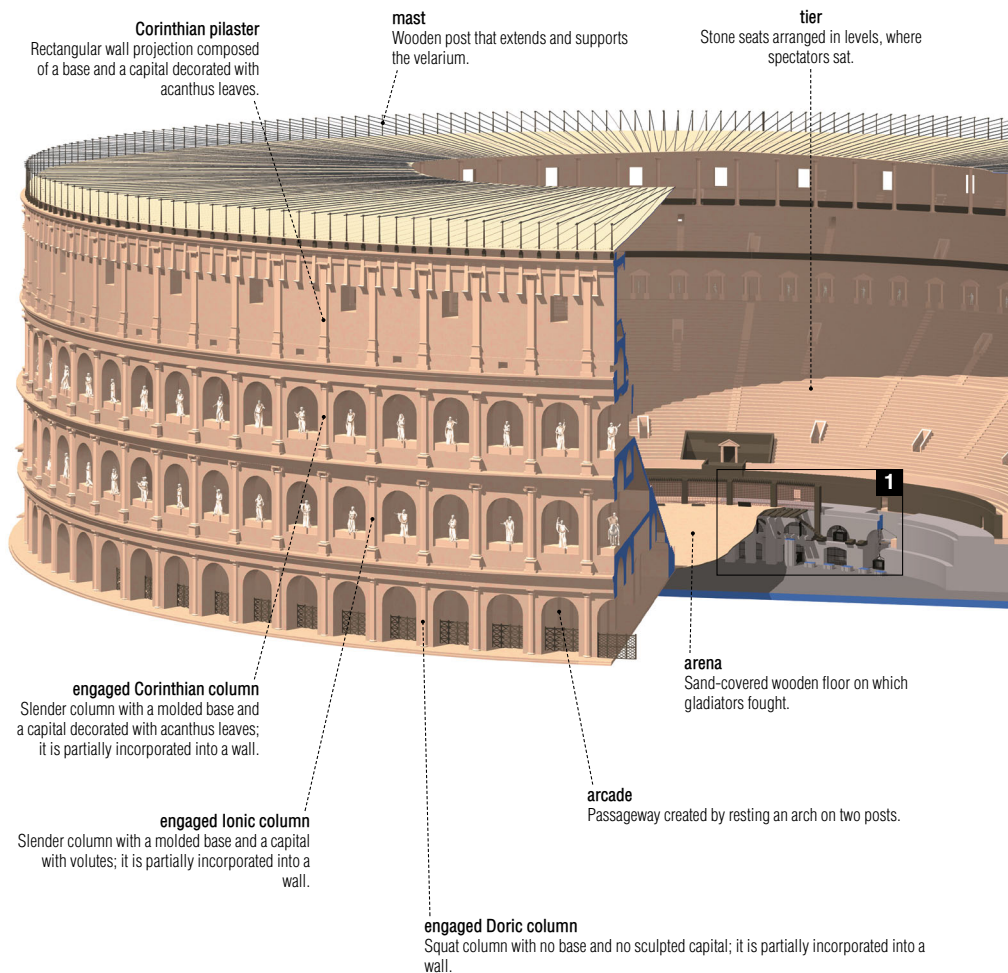
For wealthy Romans, family life unfolded in spacious luxurious houses whose rooms were arranged around open-air spaces.

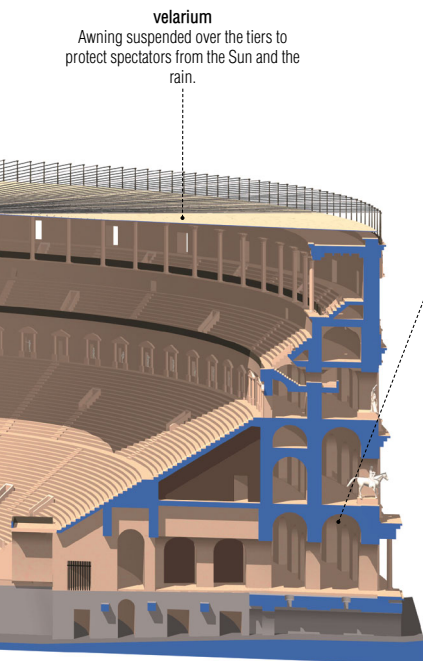




Roman amphitheater

Oval or round building composed of an arena surrounded by tiers; it was used mainly to stage gladiator fights.





velarium

Awning suspended over the tiers to protect spectators from the Sun and the rain.

barrel vault

Arched masonry construction resting on posts.

underground

Area located beneath the arena, designed for easy access for prisoners, gladiators and animals.

elevator

Device that used a counterweight system to raise the animals to arena level.

cage

Barred cell used to lock up and transport animals.

trapdoor

Lift-up door through which gladiators and animals entered the arena.

arena

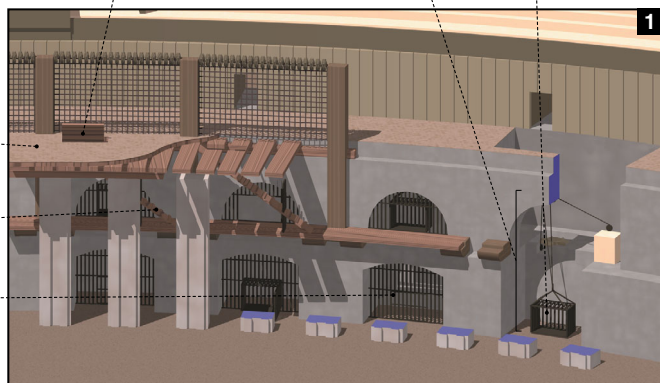
Sand-covered wooden floor on which gladiators fought.

ramp

Sloping passage used to reach another level.

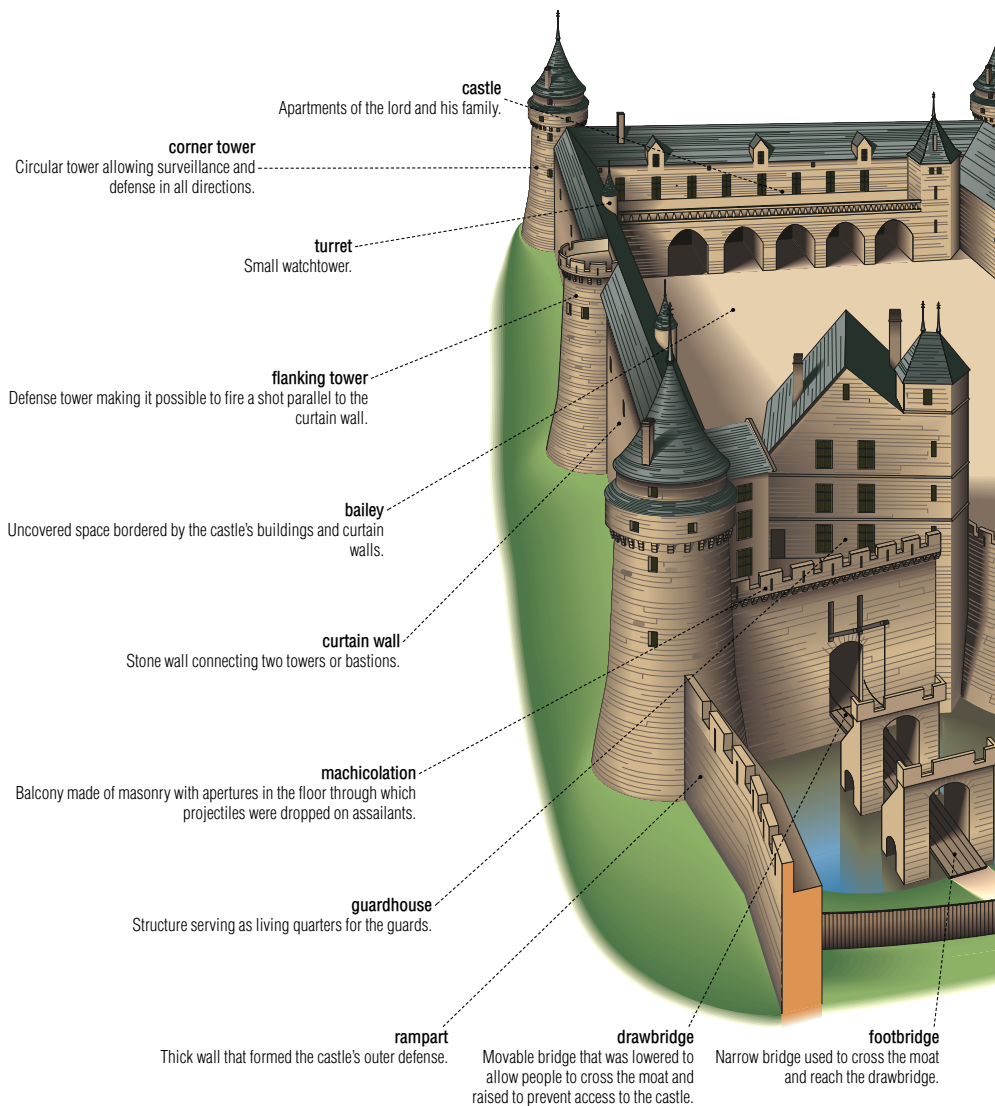
cell

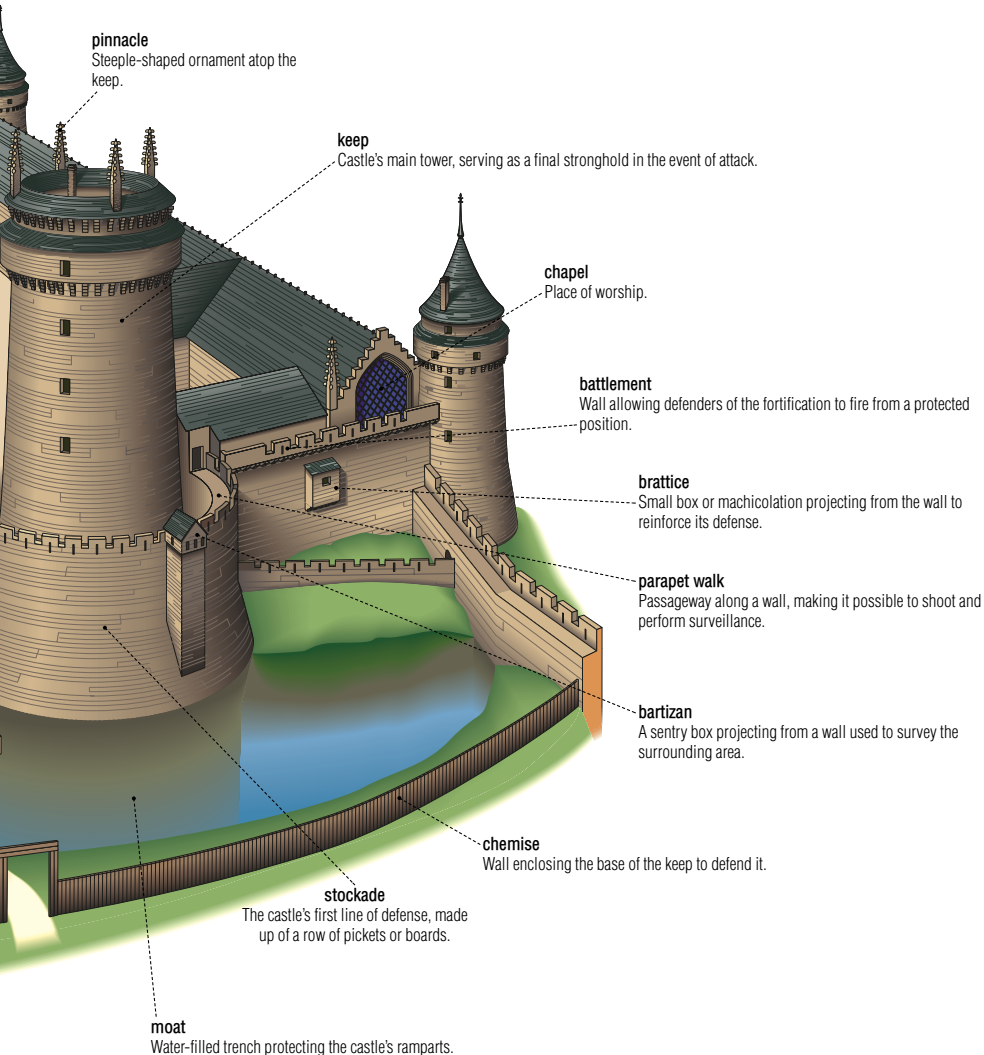
Barred room in which prisoners condemned to take part in the games were held.



castle

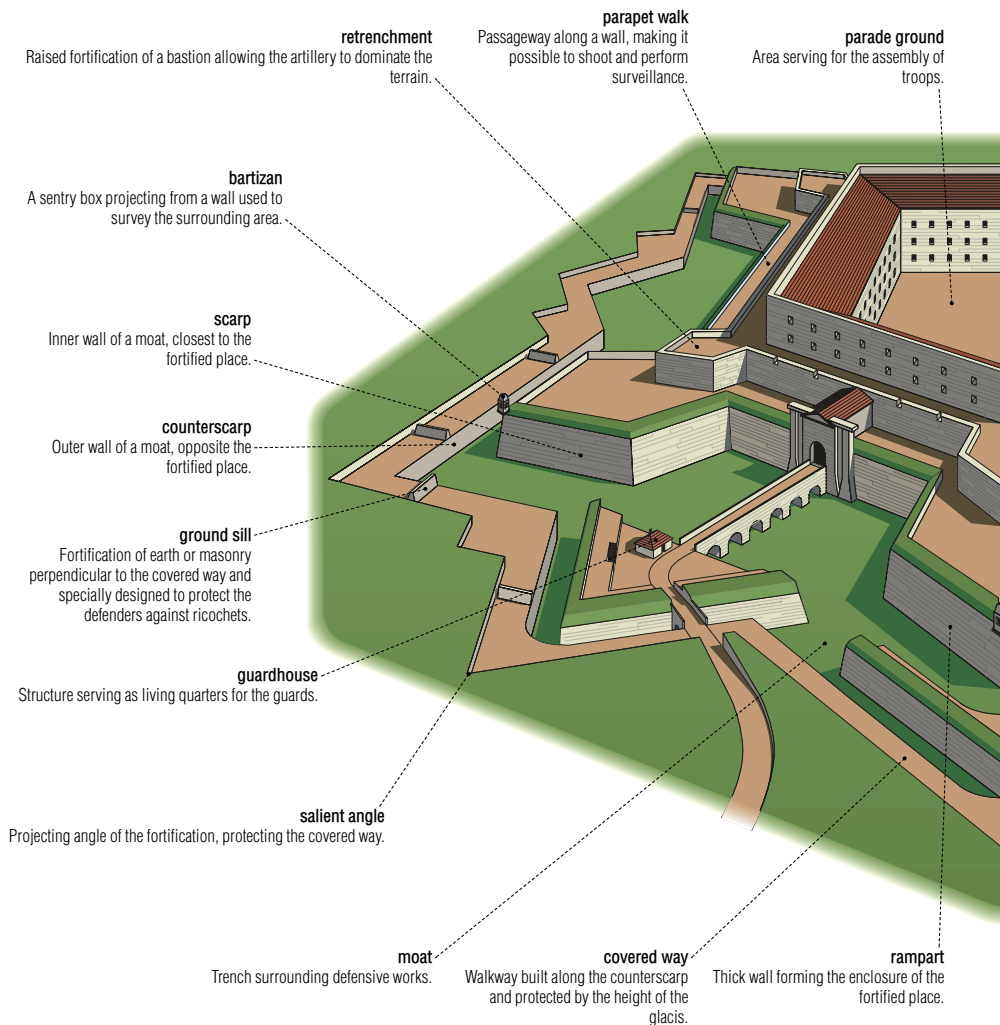
Fortified residence of a feudal lord, designed to protect against assailants.

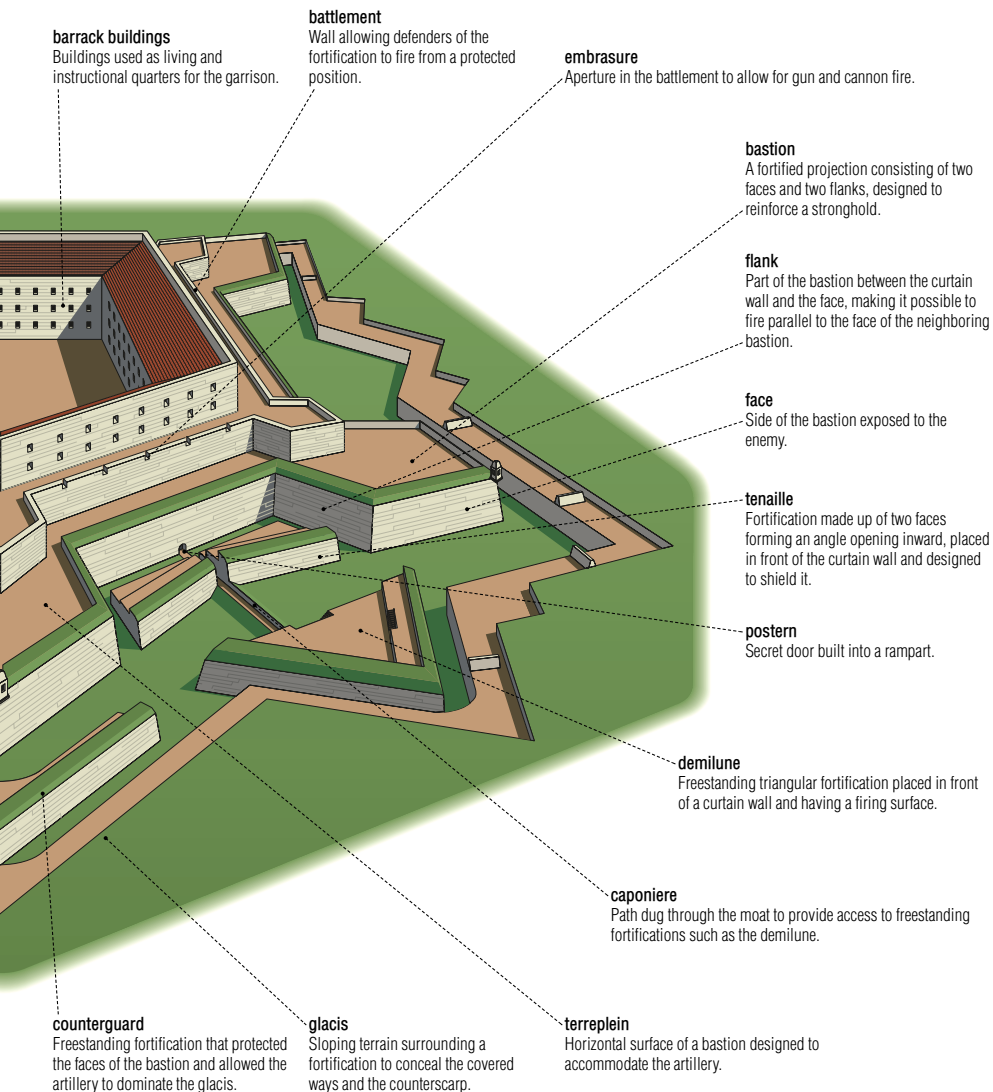




Vauban fortification

Star-shaped military fortification developed by the Frenchman Vauban in the 17th century.



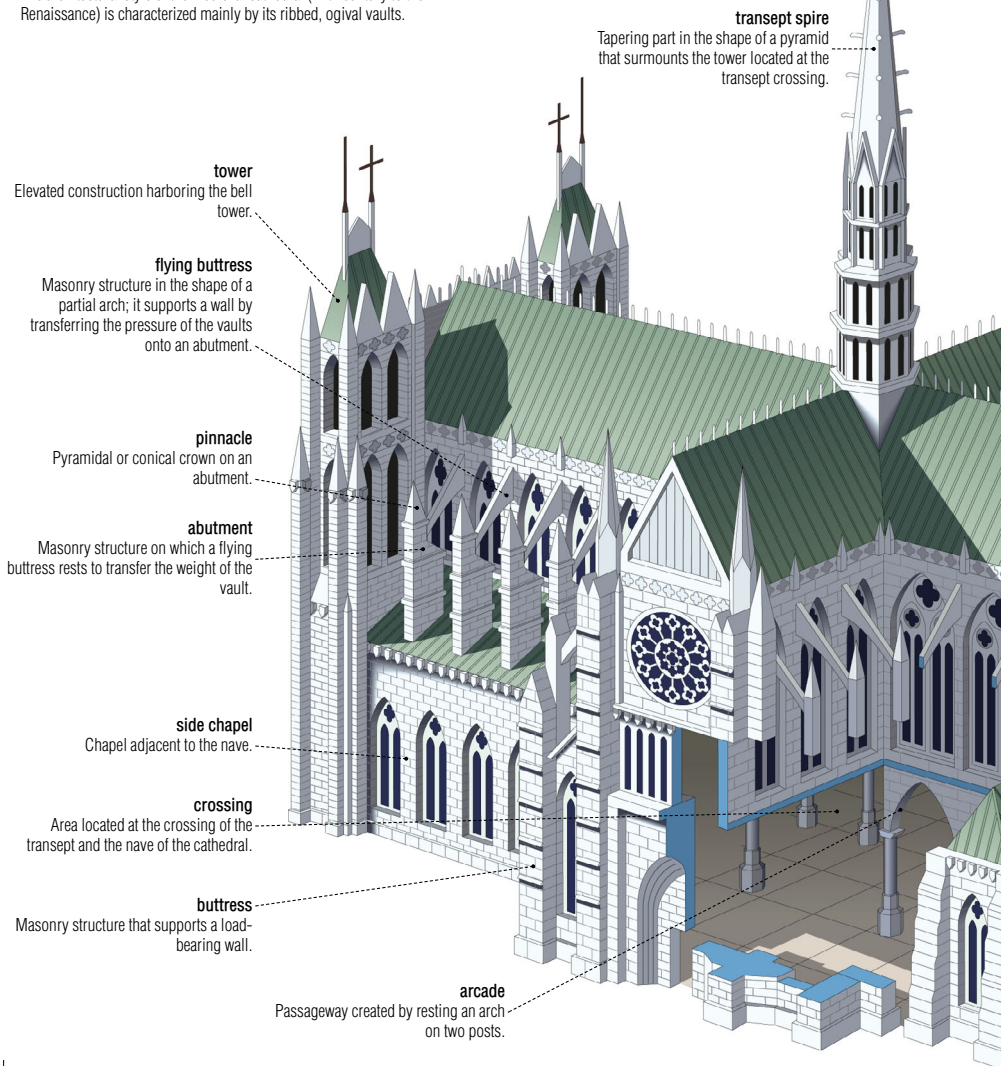


cathedral

The main church of a diocese, the site of the bishop's see.

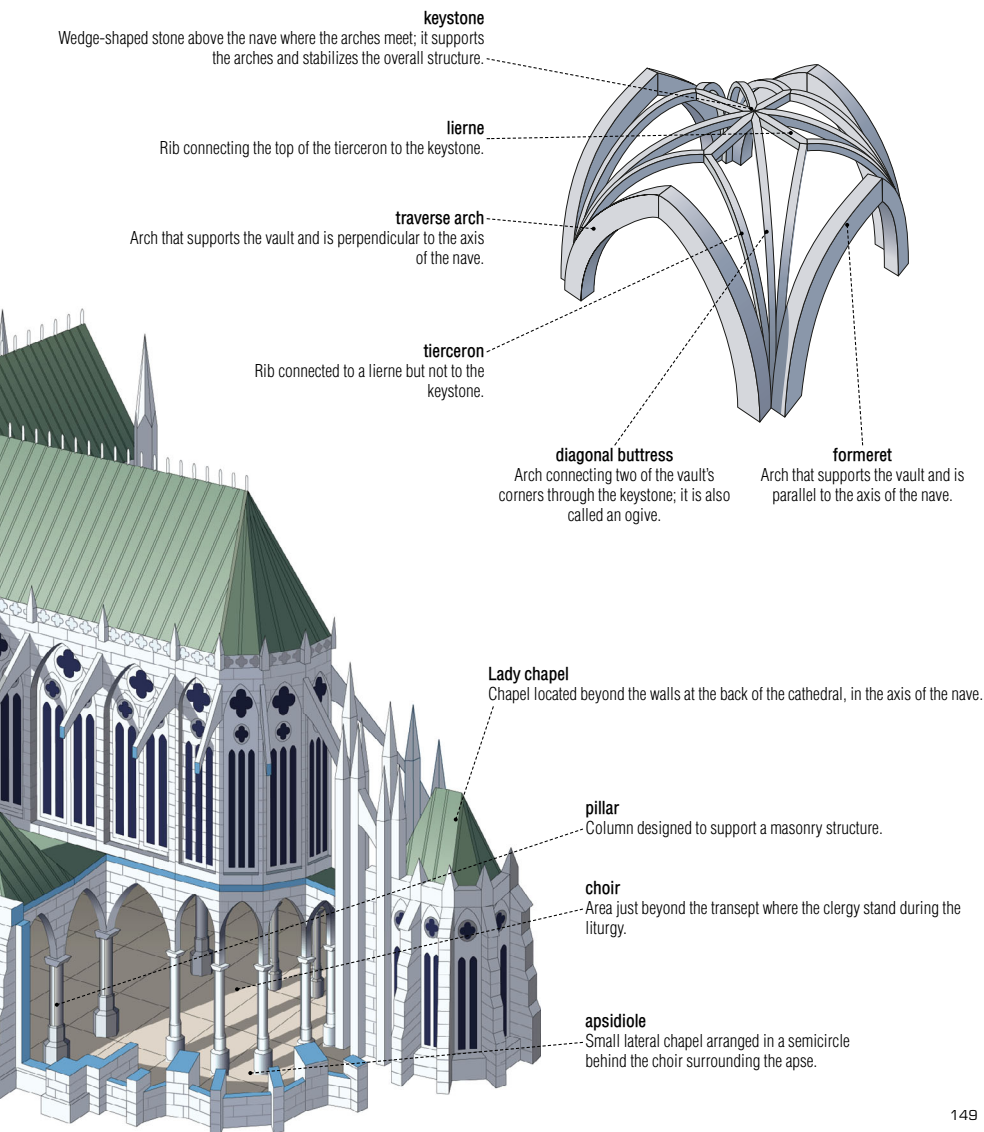
Gothic cathedral

The architectural style of the medieval cathedral (12th century to the Renaissance) is characterized mainly by its ribbed, ogival vaults.



vault

The vault of a Gothic cathedral rests on a series of arches that cross at the summit of the nave and are supported by lateral pillars.



louver-board

Inclined slat located in the bell tower bay; it projects the sound of the bells downward.

rose window

Large circular bay composed of decorative tracery and stained glass; it is also called a rosette.

tracery

Stone framework adorning the inside of a bay.

stained glass

Translucent decorative work comprised of an assemblage of glass pieces, usually colored, that fills a bay.

flying buttress

Masonry structure in the shape of a partial arch; it supports a wall by transferring the pressure of the vaults onto an abutment.

tympanum

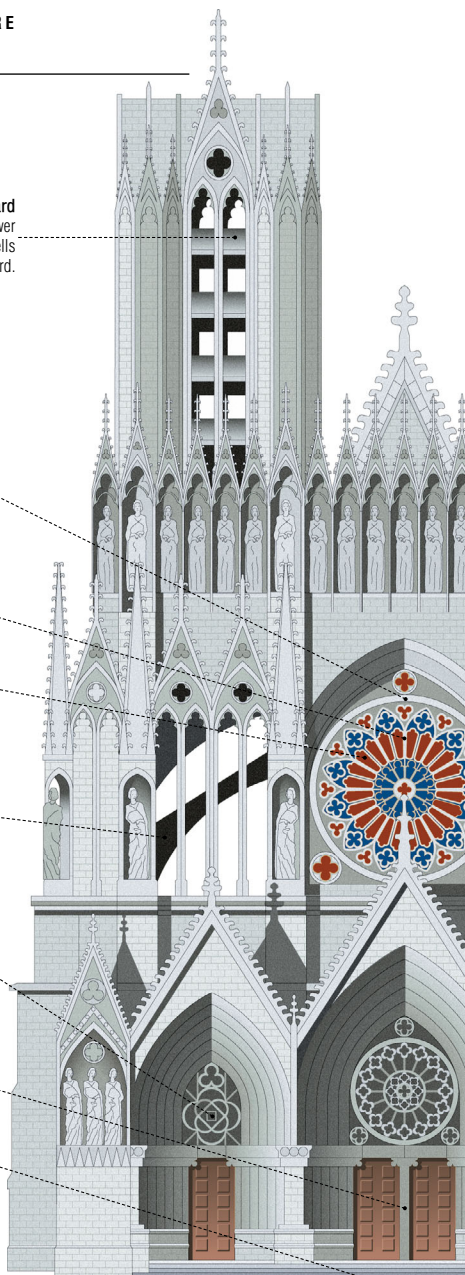
Flat portion of the portal above the door and between the orders.

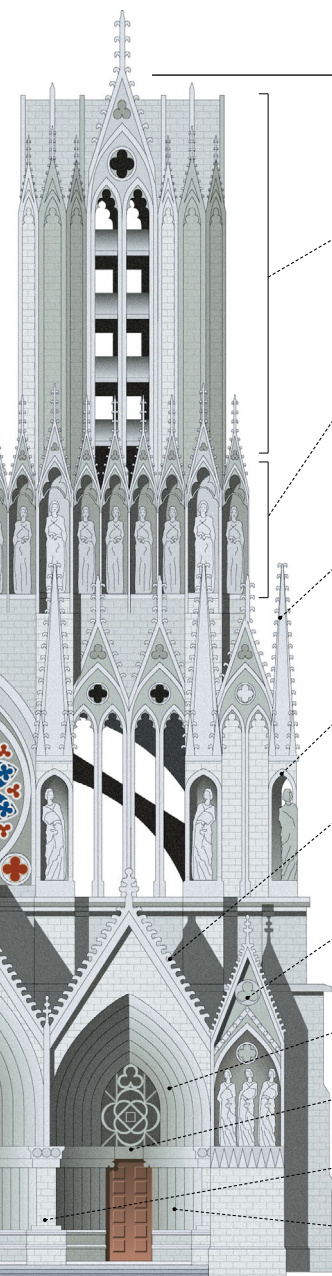
pier

Pillar dividing the portal in two and supporting the lintels.

portal

Ornamental architectural feature of a façade containing one or several doors.





bell tower

Tower with bays in which the bells are hung.

gallery

Covered passage along the cathedral's façade, decorated with statues.

spire

Tapering part in the shape of a pyramid that surmounts the belfry.

belfry

Small steeplelike ornament in the shape of a pyramid; it is found on the corners of the transept or on each side of the façade.

gable

Triangular decorative element with molded edges, located above the portal.

trefoil

Ornamental motif comprised of three lobes.

order

Each of the receding arches that form a vault over a portal.

lintel

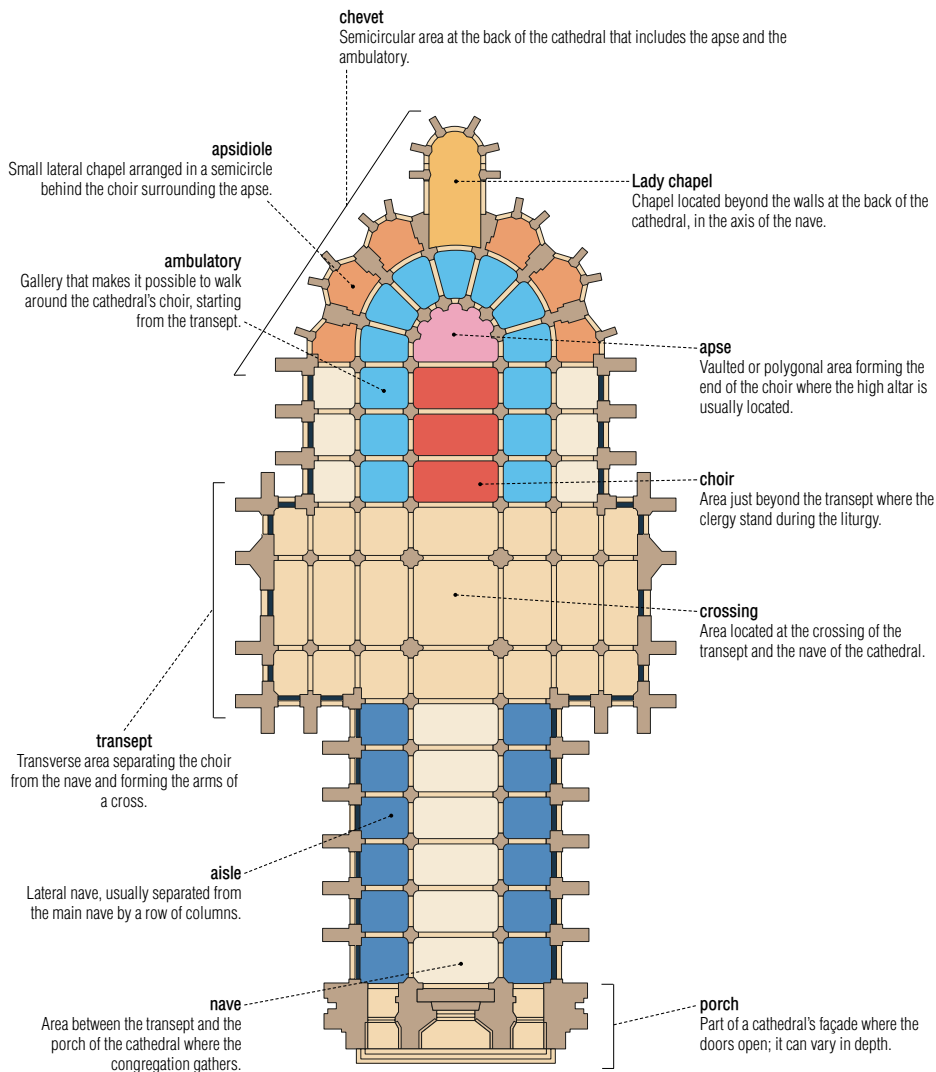
Horizontal section of the door frame that fills the opening above a door or portal.

pier

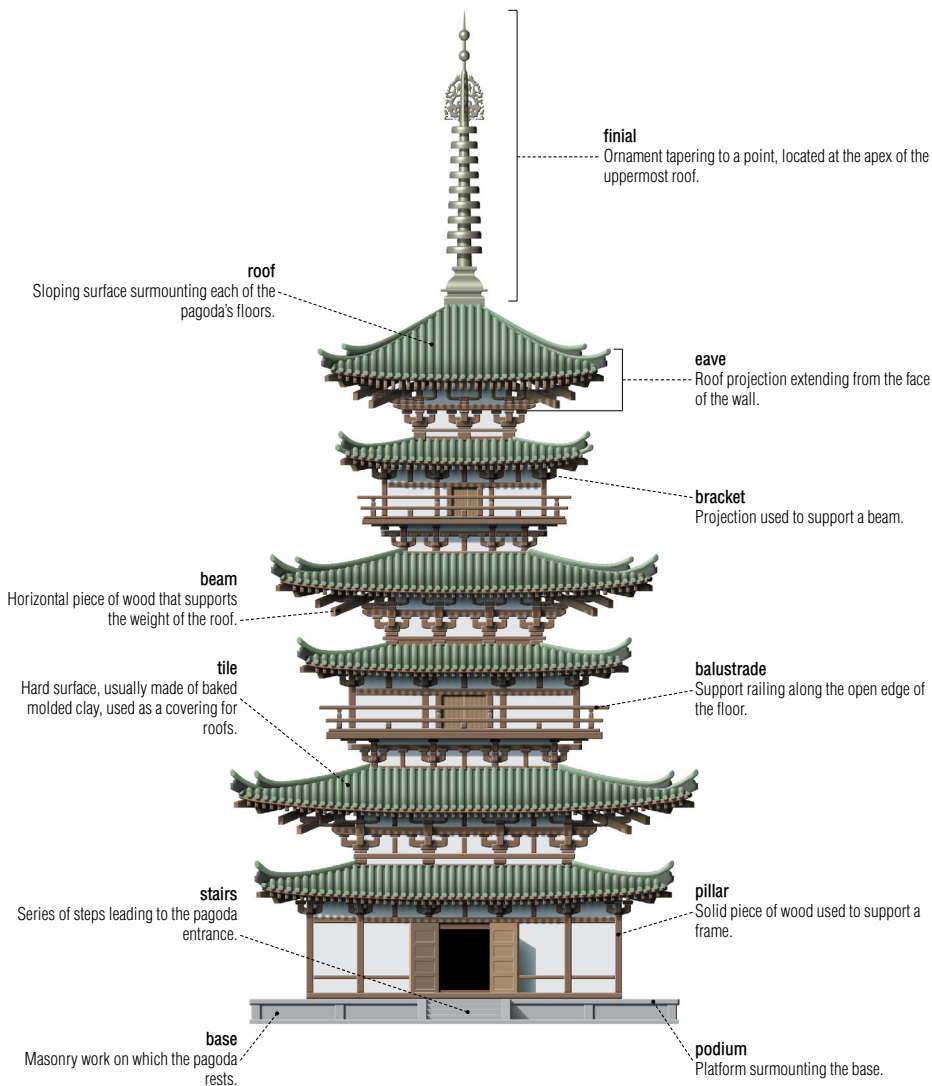
Masonry pillar supporting the orders.

splay

Recessed side of the portal that widens from its inside to its outside edge.



Place of worship for Buddhists of the Far East, usually made up of a series of stories, each with its own roof.



Aztec temple

Pyramid-shaped religious edifice of pre-Columbian Mexico featuring one or several temples.



Chac-Mool

Sculpture representing a reclining god.

Temple of Tlaloc
Temple devoted to the god of rain, lightning and fertility.

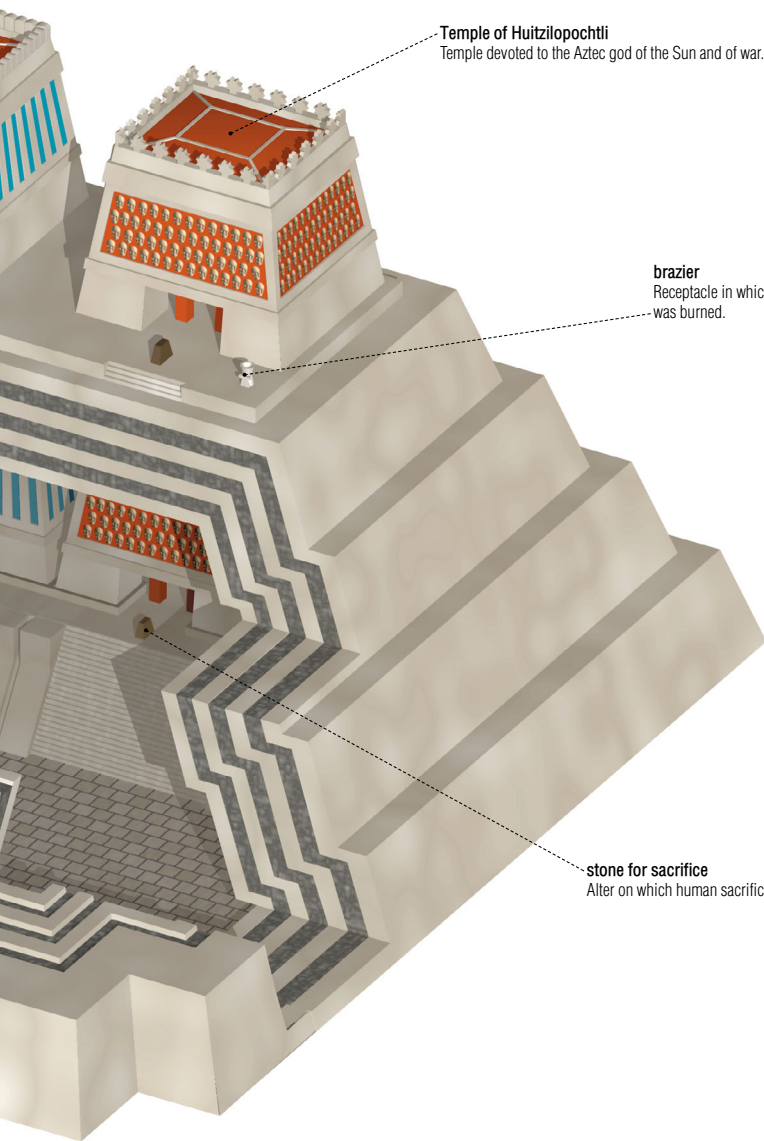


stairways
Series of steps leading to the summit of the pyramid.

Coyolxauhqui stone

Block of stone sculpted in the image of the Moon goddess, sister of Huitzilopochtli.



**Temple of Huitzilopochtli**

Temple devoted to the Aztec god of the Sun and of war.

brazier

Receptacle in which the heart of the person sacrificed was burned.

stone for sacrifice

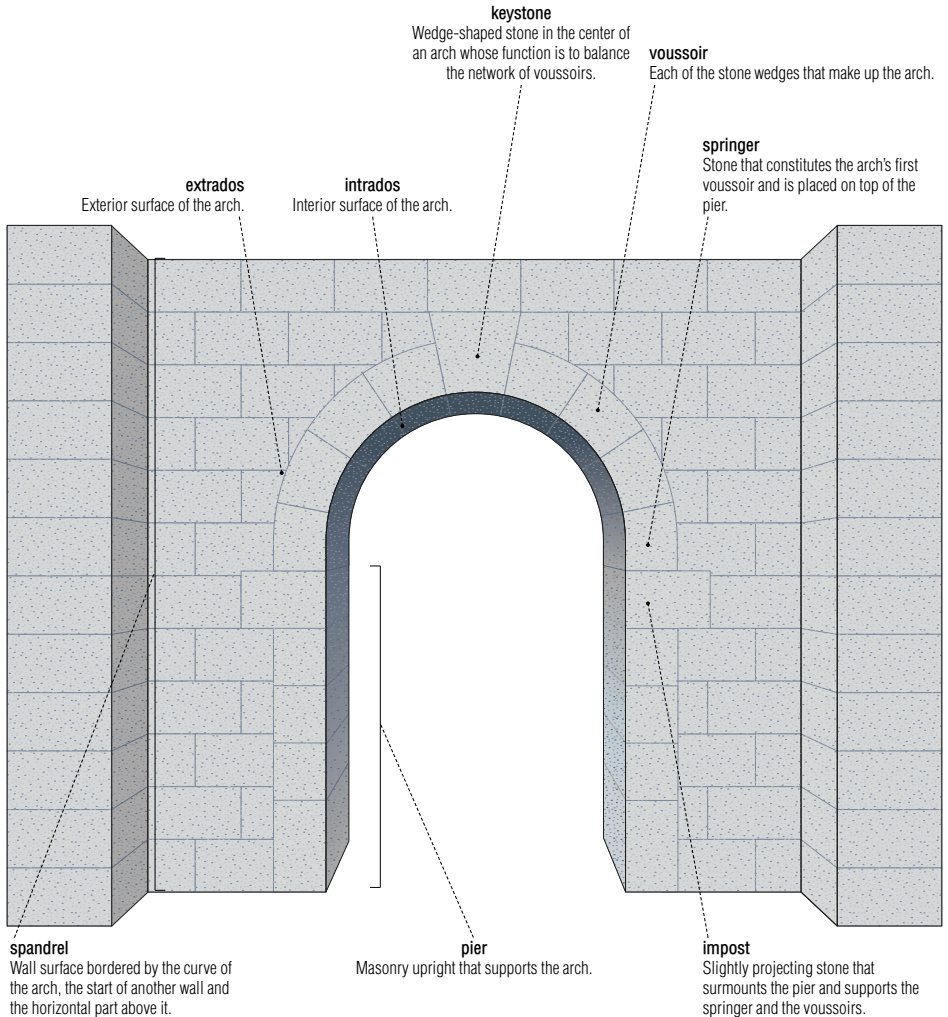
Alter on which human sacrifices were performed.

elements of architecture

Collective term for the components used in the construction of buildings.

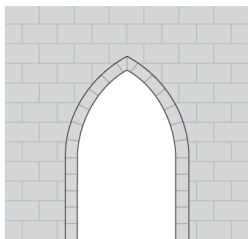
semicircular arch

Arch in the form of a semicircle.



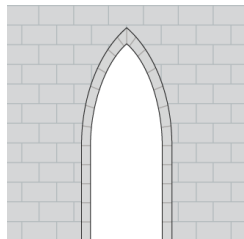
examples of arches

Arches: curved constructions supported on each side by piers.



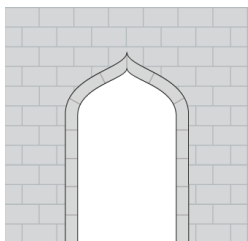
equilateral

Arch forming an acute angle that is characteristic of the Gothic vault.



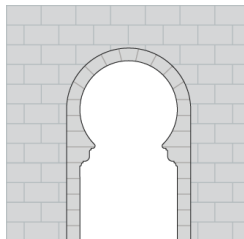
lancet

Equilateral arch whose span, or distance between the piers, is reduced.



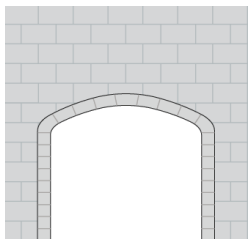
ogee

Arch comprised of two symmetrical curves that are alternately convex and concave.



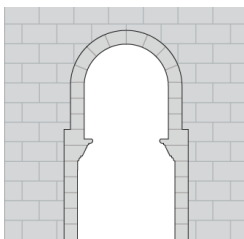
horseshoe

Arch whose extremities extend beyond a semicircle; it is characteristic of Arab architecture.



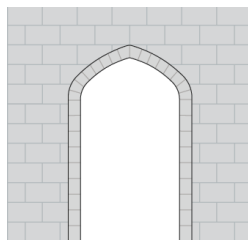
basket handle

Arch that is lower than it is wide and forms an ellipse.



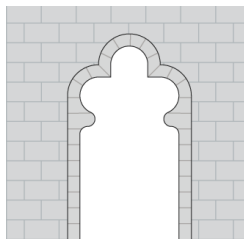
Tudor

Flattened equilateral arch that is characteristic of the style that flourished in 16th-century England.



stilted

Arch that takes the form of a semicircle but is higher than the semicircular arch.

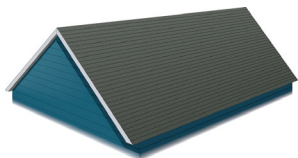


trefoil

Arch with three lobes.

examples of roofs

Roof: the covering of a building that rests on the frame and protects it from inclement weather.

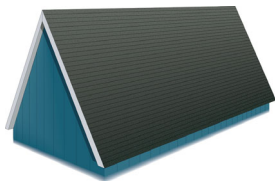


pitched roof

Roof with two inclined sides whose peak angle varies.

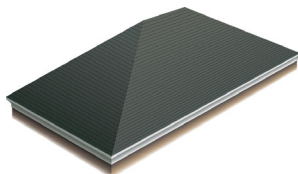
gable roof

Sloping roof whose peak angle is very sharp.



hip roof

Roof composed of two triangular sides (hips) and two trapezoid sides.



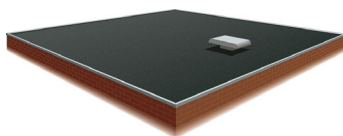
lean-to roof

Roof with one side only, usually covering a building that is supported by a higher building.



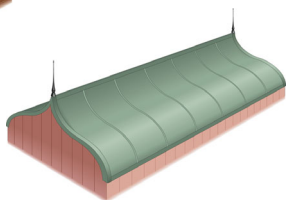
flat roof

Roof whose level surface slopes slightly allowing water to run off.



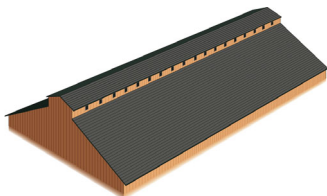
ogee roof

Two-sided roof that resembles the hull of an overturned ship.



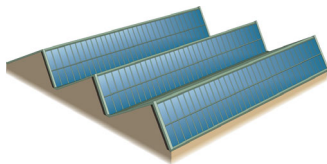
monitor roof

Sloping roof whose raised summit contains windows that let in light and ventilate the loft.



sawtooth roof

Roof composed of a series of small roofs with two asymmetrical sides, the steepest of which often contains a window.



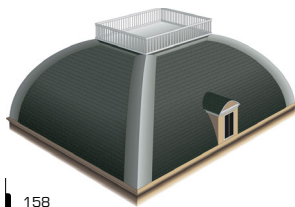
mansart roof

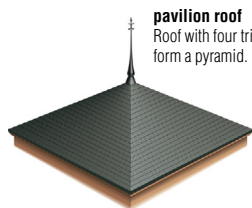
Four-sided roof whose slope is gentle at the summit and steep at the base.



imperial roof

Roof with curved sides that resembles a crown.





pavilion roof

Roof with four triangular sides that form a pyramid.



sloped turret

Many-sided roof whose slope is steep at the summit and gentle at the base.



helm roof

Pyramidal or conical roof that usually surmounts a tower or bell tower.



bell roof

Roof covering the hollow semicircular vault of a building (dome).



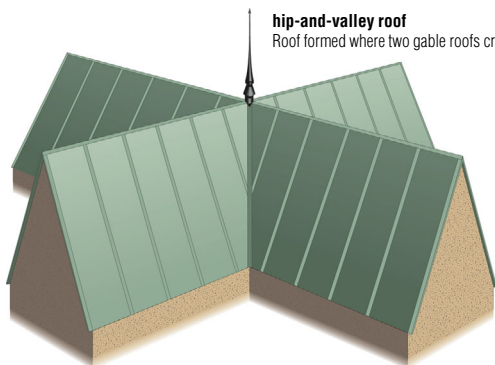
conical broach roof

Conical roof usually surmounting a turret.



rotunda roof

Roof with several triangular sides on a polygonal base.



hip-and-valley roof

Roof formed where two gable roofs cross.



dome roof

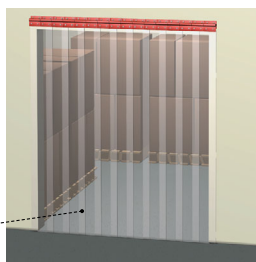
Roof covering a large dome that sometimes rises above the rest of the roof.

examples of doors

Doors: composed of a movable part, the wing, and a frame; their function is to close up a bay.

Each of the flexible plastic bands that overlap to close the bay and move apart to allow a person through.

strip



strip door

Door comprised of strips of flexible plastic; it allows easy movement between two rooms.



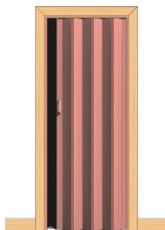
conventional door

Door made up of a wing that opens and closes by pivoting on hinges.



folding door

Sliding door whose wing is composed of two articulated panels that fold together when opened.



sliding folding door

Sliding door whose wing is composed of articulated panels that fold together when opened.



sliding door

Panel or panels of a door sliding horizontally along a set of tracks.



fire door

Fireproof door that delays the spread of flames and smoke during a fire.



sectional garage door

Door whose wing is composed of articulated horizontal panels that slide along rails into the roof of the garage.



up and over garage door

Door made up of a wing that slides toward the ceiling of the garage.

manual revolving door

Rotating door comprised of three or four plateglass wings that, when pushed, pivot around a vertical axis in the manner of a turnstile.



canopy

Metal ring forming the upper part of the enclosure, where the guide rail for the wings is located.

wing

One of the vertical sections of the revolving door.

push bar

Horizontal part that is pushed to move the revolving door.

enclosure

Intermediary space between two rooms or a room and the outside, where the door is placed.

compartment

Part bordered by two wings where one or more people enter and push the door to make it rotate.

automatic sliding door

Door activated by a motion detector that causes the wings to slide along a rail.



motion detector

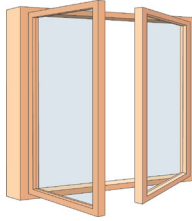
Device that detects the presence of a person and is set to open and close the wings.

wing

The part of the door that moves.

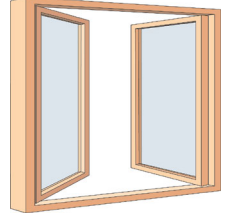
examples of windows

Windows: bays built into a wall and containing glass to let in light and air.



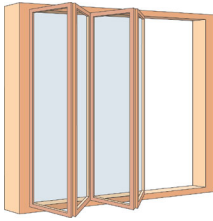
French window

Window with two sashes that open in, pivoting vertically along a hanging stile.



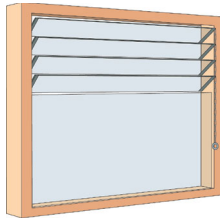
casement window

Window with one or two sashes that open out, pivoting vertically along a hanging stile.



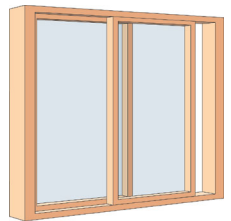
sliding folding window

Sliding window whose sash is composed of a series of articulated panels that fold together when opened.



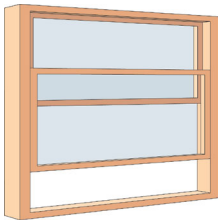
louvered window

Window whose glass louvers rotate along a horizontal axis.



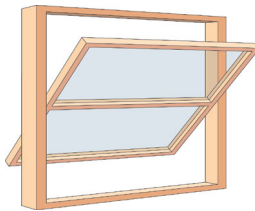
sliding window

Window with one or more sashes that move horizontally along a groove.



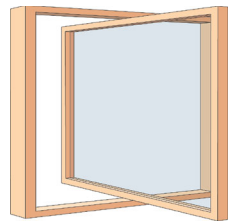
sash window

Window with one or more overlapping sashes that slide open vertically.



horizontal pivoting window

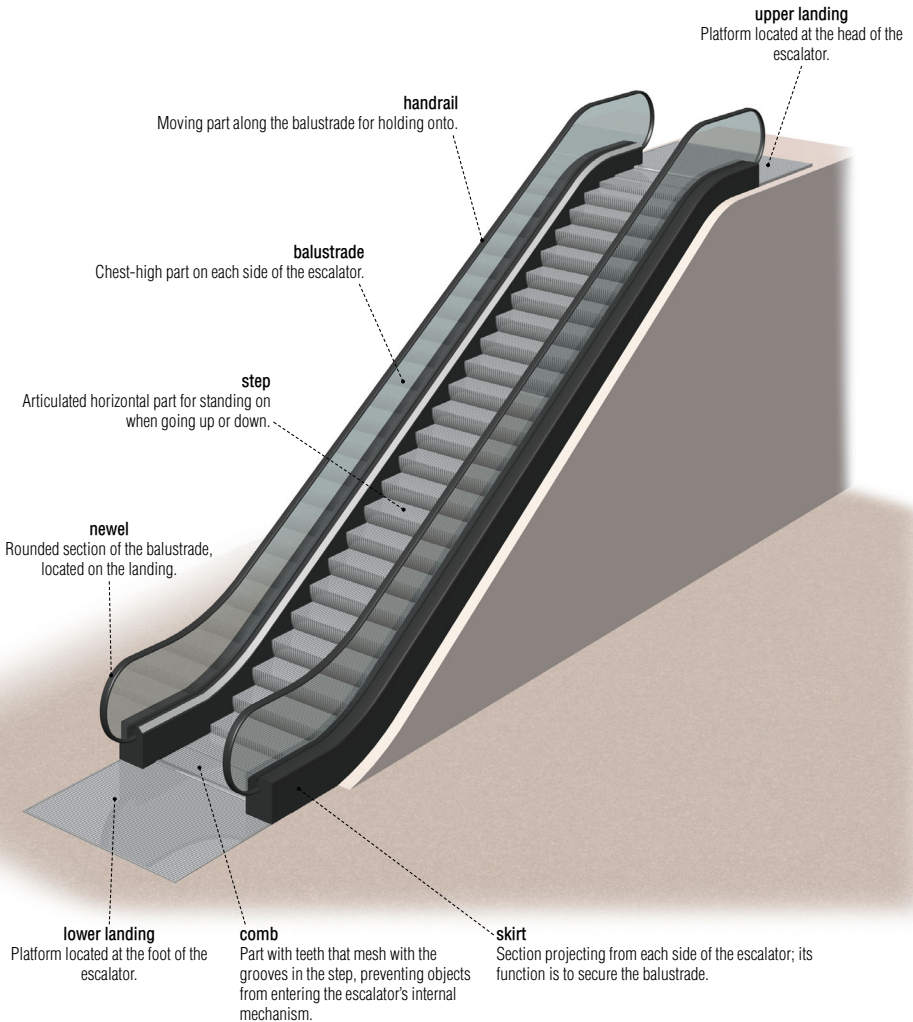
Window whose sash rotates along a horizontal axis located at its midpoint.



vertical pivoting window

Window whose sash rotates along a vertical axis located at its midpoint.

Installation that consists of articulated steps on a continuously turning chain; it allows movement between two levels of a building.

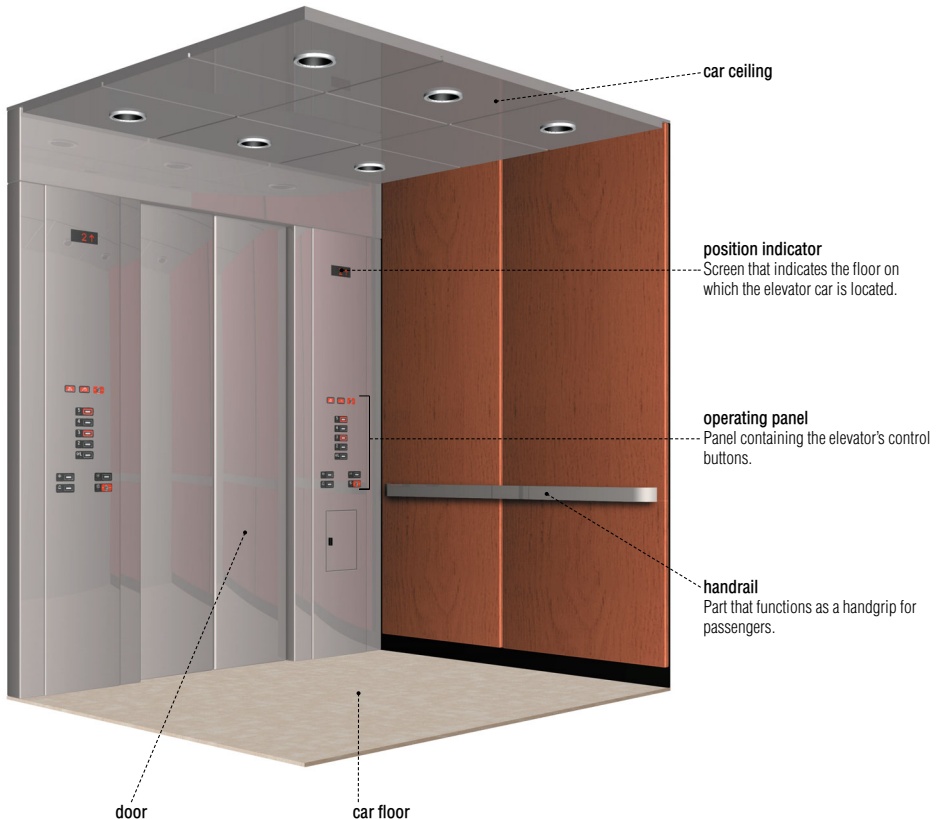


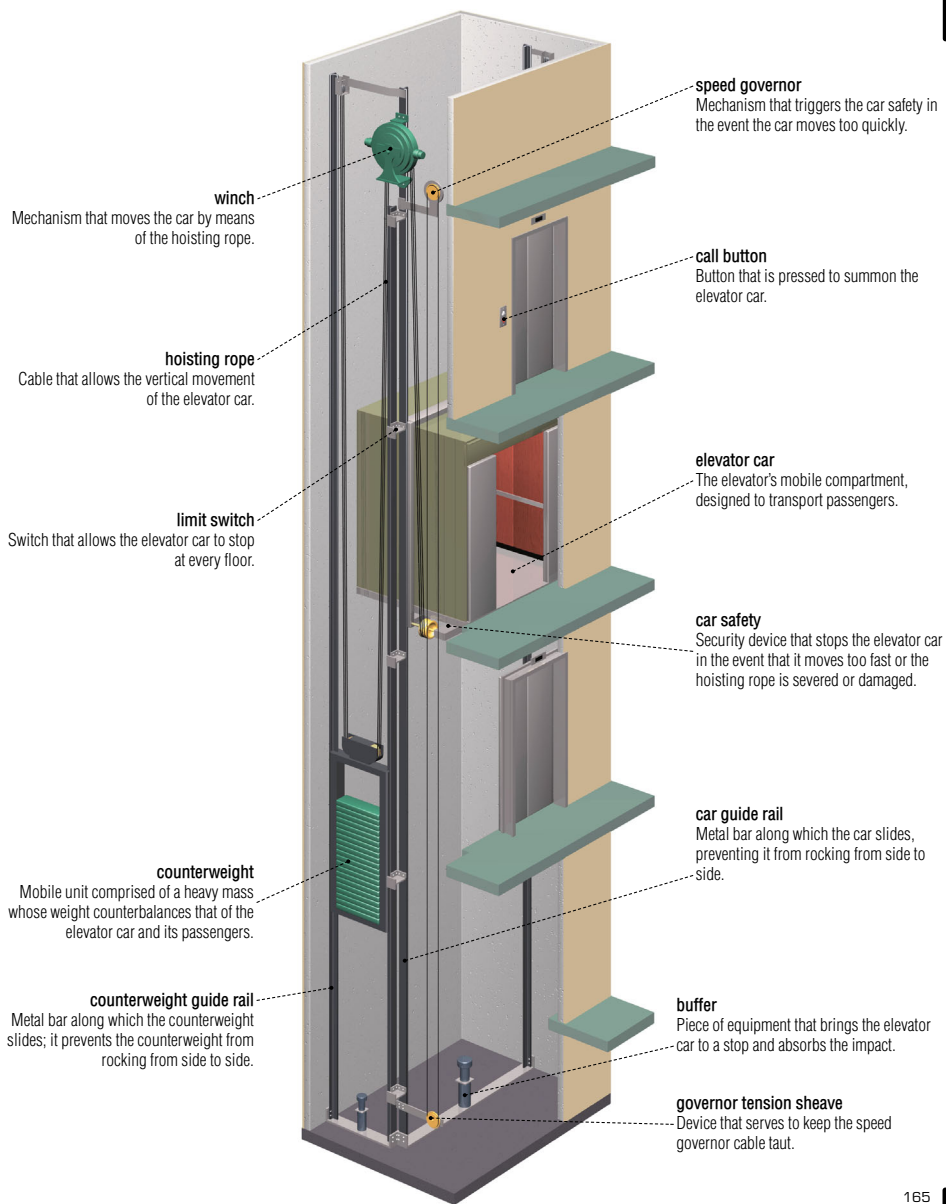
elevator

Mechanical apparatus with a car that provides automated movement of people between the levels of a building.

elevator car

The elevator's mobile compartment, designed to transport passengers.





traditional houses

The dwellings, current or of former times, that characterize a given culture.



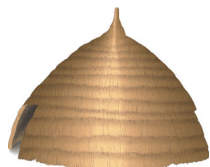
igloo

Dome-shaped Inuit dwelling made of blocks of snow or ice.



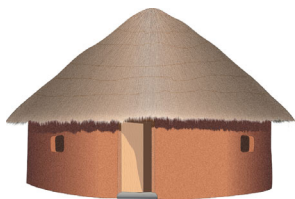
yurt

Portable dwelling of the nomadic peoples of central and northern Asia composed of a wooden frame covered with felt.



hut

Rudimentary dwelling made from tree branches and straw.



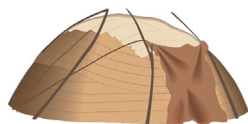
hut

Dwelling of African countries, usually made of straw and clay and covered with a straw roof.



isba

Dwelling of various countries in northern Europe, especially Russia, made of the wood of the fir tree.



wigwam

Round or oval dwelling of North American Indians made of poles covered with bark, matting and skins.



pile dwelling

Dwelling built over water or wet land and supported by posts.



tepee

Conical dwelling of the Indians of the North American plains, made of poles covered with skins.

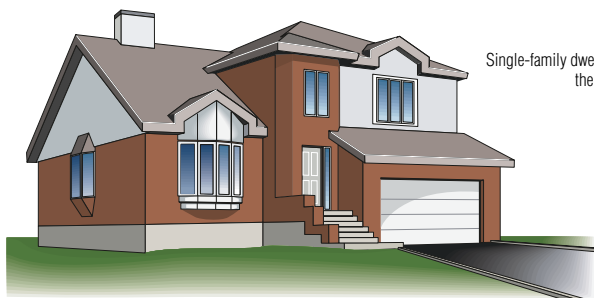
ladder
Movable wooden implement with rungs, for reaching the roof.

beam
Heavy horizontal piece that transfers the weight of the roof onto the support structure.

adobe house
Dwellings typical of countries in Latin America made of clay bricks and sun-dried straw.



Dwelling types found in large urban centers.

**two-storey house**

Single-family dwelling that contains two levels, the first floor and a second floor.

**one-storey house**

Single-family dwelling that contains only one level, the first floor.

**semidetached cottage**

Single-family dwelling separated from another dwelling by a party wall.

town houses

Houses of the same height built in more or less the same style and separated by party walls.



condominiums

Group of lodgings belonging to separate owners who share the building's maintenance costs.

high-rise apartment
Tall building containing multiple dwellings.



ENGLISH INDEX

A

A 63
 abacus 137, 138
 abutment 148
 acanthus leaf 139
 accent mark 65
 accessories 19
 accessory box 112
 accessory shoe 44
 accidentals 64
 accordion 58
 acoustic ceiling 43
 acoustic guitar 75
 acroterion 134, 137
 action lever 80
 address 39
 adaptor 57
 adjustable lamp 16
 adjusting lever 67
 adjustment pedal 16
 administration 8
 adobe house 166
 adze 20
 air flow 15
 air hole 35
 air hose 15
 air sealing gland 85
 air shaft 132
 air valve 15
 airbrush 15
 airbrush, cross section 15
 aisle 152
 alteration line 110
 ambulatory 152
 amphitheater, Roman 142
 annulet 137
 antefix 135
 aperture 46
 apse 152
 apsidiole 149, 152
 arcade 142, 148
 arches, examples 157
 architectural styles 137
 architecture 132
 architecture, elements 156
 architrave 134, 139
 archives 8
 arena 142, 143
 arm 61, 103, 112
 arm nut 113
 arpeggio 65
 aris 137
 art director 38
 articulated mannequin 14
 arts and architecture 8

ascending passage 132
 assistant camera operator 38
 astragal 139
 atrium 140
 audioguide 10
 auditorium 8
 autofocus 46
 automatic sliding door 161
 Aztec temple 154

B

B 63
 baby grand 81
 back beam 123
 back board 33
 back check 80
 backdrop 42
 backing 30
 backing board 30
 backing hammer 30
 backing press 30
 bagpipes 59
 bailey 144
 balalaika 60
 balancer 77
 balcony 41
 ball 107, 125
 ball bearing 35
 ball of clay 128
 ball winder 125
 ballpoint pen 35
 balustrade 153, 163
 banding wheel 129
 banjo 59
 bar 43, 97
 bar line 62
 barren 22
 barrack buildings 147
 barrel 35
 barrel vault 143
 bartizan 145, 146
 base 31, 139, 153
 basic weaves 127
 basket handle 157
 basket stitch 116
 bass bridge 78
 bass clarinet 68
 bass drum 69, 94
 bass guitar 77
 bass keyboard 58
 bass pickup 76
 bass register 58
 bass tone control 77
 bassoon 90
 bassoons 68
 bastion 147
 battan 42
 batter head 94, 95
 batter skin 61
 battery 54
 battery level 46
 battery pack 54
 battlement 145, 147
 beam 153, 166
 bearer 84
 beater 122
 beater handtree 123
 bed 28
 bed chamber 141
 belfry 151
 bell 89, 93
 bell brace 89
 bell roof 159
 bell tower 151
 bellows 58, 86
 bellows strap 58
 bells 97
 below-stage 42
 bent blade 19
 bias 111
 black-and-white 46
 blade 105, 109
 blade lever 29
 blade with two beveled edges 19
 blades, major types 19
 block 87
 block cutter 20, 22
 blow pipe 59
 blower 86
 blue 17
 blue-green 17
 board cutter 29
 bobbin 102, 104, 106, 117, 124
 bobbin case 104
 bobbin lace 117
 bobbin winder 103, 125
 body 76, 77, 87, 89
 bone folder 32
 bongos 96
 bookbinding leather 32
 boom operator 39
 border 41
 bottom cylinder 25
 bottomboard 84
 boudoir grand 81
 bound book 33
 bow 73
 box 41
 box office 36
 bracket 153
 bracketing 46
 brass family 69

brattice 145
 brayer 22
 brazier 155
 breech 89
 breech guard 89
 bridge 60, 72, 75, 77
 bridge assembly 76
 bridle tape 80
 brush 13, 24
 buffer 165
 bugle 91
 bullion stitch 119
 burnisher 24
 butt 32, 114
 button 58
 button cell 54
 buttress 148

C

C 63
 C clef 62
 cable shutter release 54
 cable stitch 116
 cage 143
 caliper 26
 call button 165
 camera 40, 52
 camera bag 54
 camera body 44
 camera operator 40
 camera platform 55
 camera platform lock 55
 camera screw 55
 cane pen 34
 canopy 161
 canvas 18
 cap 15, 35, 56
 capital 139
 caponiere 147
 car ceiling 164
 car floor 164
 car guide rail 165
 car safety 165
 cardboard 18
 carriage control dial 113
 carriage handle 113
 carriages 112
 cartridge 35
 cartridge film 49
 carver's bench screw 19
 carving 19
 case 66, 79
 casement window 162
 cast-on stitches 115
 castanets 69, 97
 caster 95
 castle 144
 catcher 80
 cathedral 148
 cathedral, plan 152
 catwalk 42
 CD/DVD-ROM drive 99
 cell 143
 cello 73
 cellos 69
 center 41
 center screw 31
 Chac-Mool 154
 chain stitch 119
 chanter 59
 chapel 145
 charcoal 13
 charcoal drawing 11
 chemise 145
 chevet 152
 chevron stitch 119
 chin rest 72
 chisel 22
 choir 149, 152
 choir organ manual 83
 chord 65
 circular body 59
 circular needle 115
 city houses 167
 clamp 29, 125
 clapper/the slate 40
 clarinet 90
 clarinets 68
 claw 30
 clefs 62
 clip 35
 cloakroom 8
 close-up lens 51
 cloth roller 122
 coiling 130
 collet 55
 color chart 14
 color circle 17
 color display 113
 color filter 51
 color spray 15
 colored pencil drawing 11
 colored pencils 12
 colors 17
 column 55, 103, 135, 136, 139
 column crank 55
 column lock 55
 comb 121, 163
 command control dial 44
 compact camera 52
 compact flash card 49
 compact memory card 47
 compartment 161

compluvium 140
concert grand 81
condominiums 168
conductor's podium 69
conical broach roof 159
connecting cable 131
connecting terminal 104
conservation laboratory 9
contact printer 56
continuity person 39
contrabassoons 68
control center 8
control room 43
conventional door 160
copper plate 24
cord 28
Corinthian column 142
Corinthian order 139
Corinthian pilaster 142
corner 33
corner tower 144
cornet 69, 91
cornice 134, 138
correction key 113
costume 38
couched stitches 119
counterguard 147
counterpressure cylinder 23
counterscarp 146
counterweight 165
counterweight guide rail 165
coupler-tilt tablet 82
covered way 146
covering 32
Coyolxauhqui stone 154
cradle 57
crafts 102
crank handle 27
crepidoma 134, 136, 139
crescendo pedal 83
crochet hook 115
crook 88
crook key 88
cross section of a film reflex camera 48
cross section of an airbrush 15
cross stitches 119
crossbar 28, 61, 121
crossing 148, 152
crosswise grain 111
crown 15, 74, 95
curator's office 8
curtain wall 144
cutting blade 29
cutting guide 29
cutting line 110
cutting wire 129
cymbal 94
cymbals 69, 97

D

D 63
dabber 24
damper 80, 131
damper lever 80
damper pedal 78, 101
damper rail 80
darkroom equipment 56
dart 110
demilune 147
dentiil 138, 139
depth-of-field preview button 44
depth-of-field scale 50
descending passage 132
developer bath 57
developing baths 57
developing tank 56
diagonal buttress 149
diaphragm 48
diffuser 38
digital reflex camera 47
digital reflex camera: control panel 46
dining room 141
dipper 14
director 39
director of photography 39
director's control monitors 38
disk 26
disk drive 98
disposable camera 52
distance scale 50
djembe 61
documentation center 8
dolly 40
dolly tracks 40
dome roof 159
door 164
doors, examples 160
Doric column 142
Doric order 137
double bass 73
double basses 69
double flat 64
double reed 88
double sharp 64
drafting machine 16
drafting table 16
drawbridge 144
drawing 11, 19
drawing board 16
drawing, accessories 16
drawing, equipment 12
dresser 38
dressing room 38, 43
dressmaker's model 109
drive mode 44
driving wheel 125
drone pipe 59
drum 94, 137
drums 94
drumstick 61
dry pastel 12
dry pastel drawing 11
drypoint 24, 26
duo 70

E

E 63
easel 16, 56
eave 153
echinus 137
edge 109
eighth note 65
eighth rest 64
electric guitar 76
electric kiln 131
electrical inlet 131
electronic drum pad 100
electronic flash 54
electronic instruments 98
electronic piano 101
elements of architecture 156
elevator 143, 164
elevator car 164, 165
embrasure 147
embroidered fabric 118
embroidery 118
emery pack 108
enclosure 161
end button 72
endpaper 32
engaged Corinthian column 142
engaged Doric column 142
engaged Ionic column 142
English horn 90
English horns 68
entablature 134, 139
entrance doors 36
entrance for the public 133
entrance hall 8
entrance to the pyramid 132
entrances for the actors 133
equilateral 157
equipment 22, 24, 26
erase button 47
escalator 37, 163
escapement mechanism 66
etching press 25
euthyteria 134, 138
examples of arches 157
examples of doors 160
examples of instrumental groups 70
examples of keyboard instruments 81
examples of roofs 158
examples of tools 20
examples of windows 162
exhibition rooms 9
expander 98
exposure adjustment knob 44
exposure correction 46
exposure mode 44
extrados 156
eye 105, 108, 124
eyelet 114
eyepiece 48

F

F 63
F clef 62
fabric structure 111
façade 150
face 30, 147
fan brush 13
fascia 138
fasteners 107
feather stitch 119
feed dog 106
felt 25
felt tip pen 13
felt tip pen drawing 11
fettling knife 129
fifth 63
fillet 138
film 48
film cartridge chamber 45
film guide rail 45
film guide roller 45
film leader indicator 45
film pack 49
film reflex camera 45
film reflex camera, cross section 48
film rewind system 45
film sprocket 45
films 49
fine arts 8
fine bookbinding 28
finger button 92
fingerboard 59, 72, 76, 77
final 153
finishing 19
fire door 160
firing 131
firing chamber 131
firmer chisel 20
first assistant camera operator 40
first valve slide 92
first violins 69
fishbone stitch 119
fishesey lens 50
fixative 18
fixed blade 29
fixed weight 66
fixing bath 57
flank 32, 147
flank 32, 147
flash tube 54
flat 64
flat brush 13
flat part 115
flat roof 158
flat shuttle 124
flat stitches 119
flat-bed 103
flies 42
flue 87
flue pipe 87
fluid cup 15
flute 137, 138, 139
flutes 20
flutes 68

flying buttress 148, 150
flyleaf 33
flywheel 25, 128
focal plane shutter 45, 48
focus mode selector 44
focus setting ring 50
focusing screen 48
fold line 110
folding door 160
foot 32, 74, 87, 95
foot control 104
foot hole 87
footbridge 144
footrest 128
fore edge 33
formeret 149
fortification 146
fountain pen 35
four-four time 62
four-way selector 47
fourth 63
foyers 43
frame 10, 27, 61, 97, 123
frame, embroidery 118
frames remaining/timer 46
French horn 91
French horns 69
French knot stitch 119
French window 162
fresco 140
fret 75, 76, 77
frieze 134, 138
frog 73
front board 33
function display 98, 99

G

G 63
G clef 62
gable 151
gable roof 158
gaffer 39
gallery 151
garage door 160
garden 141
garment fabric 111
garter stitch 116
gathering 32
gauge 29
gear 125
gearbox 27
gentlemen's toilet 36
glacis 147
gong 69, 97
Gothic cathedral 148
gouache 11
gouache cakes 12
gouache tube 12
gouge 20
governor tension sheave 165
grand gallery 132
graphic arts 21
great organ manual 83
Greek temple 134
Greek temple, plan 136

Greek theater 133

green 17
grille 58, 135
grip 40
gripper 23
groove 28, 105
ground sill 146
guardhouse 144, 146
guitar 75, 76
gutta 137

H

hair 73
hair stylist 38
half note 65
half rest 64
hammer 79, 80
hammer butt 80
hammer felt 80
hammer rail 79, 80
hammer shank 80
hand post 60
hand vise 24
handle 30, 73, 108, 109, 117, 123
handrail 163, 164
handwheel 31, 103
harmonica 58
harness 123
harp 74
harps 69
harpsichord 81
hatching 127
head 32, 73, 75, 76, 77, 96, 102, 115, 117
head roller 122
headband 33
headcap 33
headphone jack 98, 101
heating element 131
heddle rod 120
heddles 121, 122, 124
heel 73, 75
helm roof 159
hemline 110
herringbone stitch 119
high warp loom 120
high-hat cymbal 94
high-rise apartment 168
hinge 131
hinged presser foot 102, 106
hip roof 158
hip-and-valley roof 159
hitch pin 79
hoisting rope 165
hole 26
hook 104, 107, 114, 115
hook and eyes 107
hoop 118
horizontal motion lock 55
horizontal pivoting window 162
horseshoe 157
house 43
houses, city 167
houses, traditional 166
Huizilopochtli, Temple 155
hut 166

I

igloo 166
image review button 47
imperial roof 158
impluvium 140
impost 156
incised figure 21
ink 13, 22, 35
ink drawing 11
inked surface 21
inking slab 22
inlet hose 57
installation work 9
instrumental groups, examples 70
intaglio printing 21
intaglio printing process 24
intaglio printing process, equipment 24
interactive terminals 9
interfacing 111
interlining 111
interlock 127
intervals 63
intrados 156
Ionic column 142
Ionic order 138
isba 166

J

jack 80
jack spring 80
jazz band 71
Jew's harp 61
jingle 96
joint 33, 35

K

keep 145
kettledrum 95
key 58, 66, 79, 80, 85, 89
key finger button 89
key grip 38
key guard 89
key lever 89
key signature 64
keybed 79
keyboard 79, 99
keyboard instruments 78
keys 100
keystone 149, 156
king's chamber 132
kitchen 141
knife 20, 22
knitting 115
knitting machine 112
knitting measure 115
knitting needle 115
knot 127
knot stitches 119
kora 60

L

lace carriage 112
ladder 166
ladies' toilet 36
Lady chapel 149, 152
lam 122
lancet 157
languid 87
latch 114
latch lever 104
latch needle 114
latrines 141
lead pencil 34
lead to roof 158
leash rod 120
ledger line 62
lengthwise grain 110, 111
lens 48
lens accessories 51
lens aperture scale 50
lens cap 51
lens hood 51
lens mount 48
lenses 50
lever 23, 27
levigator 26
library 9
lid 56, 131
lid brace 131
lierne 149
ligature 88
light sensor 48
light signal 67
lightbox 56
lighting grid 39
lights 41
limit switch 165
line 62
lining 111
linseed oil 18
lintel 151
liquid crystal display 47
litho crayon 26
litho pencil 26
lithographic press 27
lithographic printing 21
lithographic stone 27
lithographic tusche 26
lithography 26
lithography, equipment 26
little finger hook 93
location of the statue 136
long and short stitch 119
loop stitches 119
louver-board 150
louvered window 162
low warp loom 122
lower landing 163
lower lip 87
lug 96
lyre 61

M

macaroni 20
machicolation 144
macro lens 50
magnet 108
main carriage 112
main lever 15
main reflex mirror 48
major types of blades 19
makeup artist 38
mallet 19, 22, 94
mallets 96
mandolin 60
mansart roof 158
manual 85
manual revolving door 161
manual/automatic mode 131
manuals 82
marker 34
marker pen 13
marking dot 110
mast 142
maulstick 16
mechanical pencil 34
mechanism of the organ 84
medium format SLR (6 x 6) 53
meeting room 8
melody strings 59
memory cards 49
Memory Stick 49
metal counterhoop 95
metal frame 79
metal rod 97
metering mode 46
metope 137
metronome 66, 67
mezzanine 41
middle torus 139
MIDI cable 100
midrange pickup 76
moat 145, 146
modillion 139
moist surface 21
monitor roof 158
mosaic 140
moss stitch 116
motion detector 161
mounting foot 54
mouth 87
mouthpiece 88, 92, 100
mouthpiece receiver 92
mouthpipe 92
movie set 38
movie theater 36
movies' titles and schedules 36
muffler felt 78
muffler pedal 78
multiple exposure mode 44
museum 8
museum shop 8
music 58

music rest 67
music stand 67, 83, 101
musical accessories 66
musical instrument digital interface cable 100
musical instruments, traditional 58
musical notation 62
mute 93
mutule 137

N

naos 135, 136
natural 64
nave 152
neck 32, 60, 72, 74, 75, 76, 77
neckstrap eyelet 45
needle 15, 102, 105, 106, 108
needle assembly 15
needle bar 106
needle bed 112
needle bed groove 112
needle clamp 106
needle clamp screw 106
needle plate 102
needle position selector 103
needle threader 108
needle tool 129
newel 163
nib 35
notation, musical 62
notch 110
note symbols 65
nozzle 15
nut 72, 75, 76, 77

O

objective lens 44, 51
oboe 90
oboes 68
octave 63
octave mechanism 88
ogee 157
ogee roof 158
oil paint 13
oil painting 11
oil pastel 12
oil pastel drawing 11
oilstone 25
one-storey house 167
open strings 59
operating panel 164
opisthodomos 136
opposite prompt side 41
orange 17
orange-red 17
orange-yellow 17
orchestra 68, 133
orchestra pit 42
order 151
organ 82
organ console 82

organ, mechanism 84
organ, production of sound 86
Oriental couching stitch 119
outlet hose 57
output jack 76
overflow tube 57

P

packing 23
pagoda 153
painting 9, 10, 11
painting knife 13
painting, accessories 16
painting, equipment 12
palette with dipper 14
palette with hollows 14
pallet 85
pallet spring 84
panel 18
panoramic head 55
panpipe 61
paper 18, 21
paper cutter 56
paper sheet 23
parade ground 146
parapet walk 145, 146
parterre 41
pattern 19, 110, 117
pattern start key 113
pause 65
pavilion roof 159
pay phone 36
pear-shaped body 60
pedal 74, 94, 95
pedal key 82
pedal keyboard 83
pedal rod 78
pedestal 74
pediment 134, 139
peg 72, 75, 118, 126
peg box 72
pen 35
pencil 34
pendulum bar 66
pentaprisms 48
percussion instruments 69, 94
performing arts 36
peristyle 135, 136, 141
permanent exhibition rooms 9
photoelectric cell 54
photographic accessories 54
photography 44
piano 69, 78
piccolo 68, 90
pickups 77
pier 150, 151, 156
pile dwelling 166
pillar 74, 149, 153
pillow 117
pin 108
pin block 79
pin cushion 108
pinking shears 109
pinnacle 145, 148

pipe 85
pipework 86
pitch and modulation switch 99
pitched roof 158
pivot 15, 66, 109
plain weave 127
plan 136, 152
plane figure 21
plaster bat 128
plate 55
platen 31
plectrum 60
podium 153
point 35, 73, 105, 115
polarizing filter 51
Polaroid® camera 53
porch 152
portal 150
position indicator 164
position marker 75, 76, 77
poster 36
postern 147
pottery 128
pottery, tools 129
power switch 47, 101
power/light switch 103
press bed 23, 25, 27
presser bar 106
presser foot 106
pressing 31
pressing board 31
pressure bar 78
pressure dial 102
pressure plate 45
pressure screw 25, 27
pricker 117
primary colors 17
print drying rack 57
print washer 57
printed image 21
printing 21
private dressing room 38
producer 39
production designer 38
production of sound 86
program selector 99
projection booth 37
projection room 9, 36
projection screen 36
projector 37
prompt side 41
pronaes 135, 136
proof press 23
property man 39
proscenium 42
pumice correcting pencil 26
punch 19
purfling 72, 75
push bar 161
push-button 35
pyramid 132
pyramid, entrance 132
pyrometric cone 129

Q

quarter note 65
quarter rest 64
quartet 70
quartz metronome 67
queen's chamber 132
quick release system 55
quick ticket system 37
quill 34
quintet 71

R

rackboard 84, 86
rackboard support 84
rail 23, 112
raised band 33
raised figure 21
ramp 134, 143
rampart 144, 146
rasp 20
ratchet wheel 123
red 17
red ochre pencil 26
red-eye reduction 46
red-violet 17
reed 88, 122
reed hooks 124
reed pipe 87
reel 56
refill 35
reflex camera, film 45
refractory brick 131
regulating button 80
release treadle 123
relief printing 21
relief printing process 22
relief printing process, equipment 22
relieving chamber 132
repeat mark 62
reservoir 86
reservoir-nib pen 13
resonator 87, 97
rest symbols 64
retrenchment 146
reverse stitch button 103
revolving cylinder 117
rhythm selector 101
rib 72, 75
rib stitch 116
ribs 129
riffer 20
ring 93, 107
rocking tool 24
rod 67, 124
roll film 49
roller 27
roller board and arms 85
Roman amphitheater 142
Roman house 140
Roman metal pen 34
Romanian couching stitch 119
roof 153
roofs, examples 158
rose 75

rose window 150
rosette 139
rotunda roof 159
roughing out 19
rouleau 24
round eye 107
row 41
row counter 112
row number display 113
ruler 16, 29

S

safety pin 107
salient angle 146
sample 116
sampler 98
sash window 162
satin weave 127
sawing in 28
sawtooth roof 158
saxhorn 91
saxophone 88
scale 63
scarp 146
scene 133
scissors 109
scotia 138
scraper 24, 27
scraper bar holder 27
screw 73
scroll 72
sculpture 9
seam allowance 110
seam gauge 108
seam line 110
seat 37, 41, 128
second 63
second assistant camera operator 38
second valve slide 92
second violins 69
secondary colors 17
secondary mirror 48
sectional garage door 160
Secure Digital card 49
selvage 111
semi-fish-eye lens 50
semicircular arch 156
semidetached cottage 167
sensitivity 44, 46
sequencer 98
sequencer control 99
set 39
set dresser 39
set of bells 97
seventh 63
sew-through buttons 107
sewing 28, 102
sewing frame 28
sewing machine 102
sewing, accessories 108
sextil 71
shaft 125, 128, 132, 139
shallot 87
shank 105, 108, 109, 114, 119
shank button 107
sharp 64
shed stick 120

sheet 32
sheet film 49
shell 95
shop 140
shoulder 74
shutter release button 44
shutter speed 46
shuttle 124
side 41
side chapel 148
side-tilt lock 55
signal lamp 131
signature 32
sima 138
single reed 88
single-lens reflex (SLR) camera 52
single-lens reflex camera 44
sistrum 97
sixteenth note 65
sixteenth rest 64
sixth 63
sixty-fourth note 65
sixty-fourth rest 64
skirt 163
skirt marker 108
slab building 130
slat 118
sleigh bells 97
slide 107
slide plate 102, 106
slide-bar 112
slider 84
sliding door 160
sliding folding door 160
sliding window 162
sliding weight 66
sliding window 162
slit 127
sloped turret 159
sloping cornice 134
slot 28
SLR camera 44
smoking candle 24
smoking-apparatus 24
snack bar 37
snap 107
snare 96
snare drum 69, 94, 96
snare head 60, 96
snare strainer 96
socket 107
soft pedal 78, 101
sound box 60, 61, 74, 75
sound engineer 39
sound hole 72
sound signal 67
soundboard 59, 61, 72, 74, 75, 79
space 62
spandrel 156
spatula 13, 22
speaker 37
speed controller 104
speed governor 165
spine 33
spine of the book 30
spire 151
splay 151

spool 117
 spool pin 103
 spool rack 126
 spoon blade 19
 spotlight 38
 spotlights 43
 spring 35
 springer 156
 spur 94
 square 33
 staff 62
 stage 41, 133
 stage curtain 41, 42
 stage-house 42
 stained glass 150
 stairs 37, 43, 153
 stairways 154
 stand 19
 standard A 67
 standard lens 50
 standing press 31
 steel pen 34
 step 163
 steps 19
 stick 73
 sticks 96
 still cameras 52
 stills photographer 39
 stilt 129
 stilted 157
 stitch control buttons 113
 stitch length regulator 103
 stitch pattern memory 113
 stitch patterns 113
 stitch selector 106
 stitch width selector 102
 stitches, embroidery 119
 stock 59
 stockade 145
 stocking stitch 116
 stone for sacrifice 155
 stop 107, 117
 stop bath 57
 stop knob 83, 85
 stop rod 85
 storage tray 16
 straight blade 19
 straight eye 107
 strap system 77
 string 72, 74, 80
 stringed instruments 72
 strings 60, 78
 strip 160
 strip door 160
 strut 95
 stylobate 134, 138
 stylus 34
 sumi-e brush 13
 superintendent's office 8
 support 120
 supports 18
 swell organ manual 83
 swell pedals 83
 swift 125
 symphony orchestra 68
 synthesizer 99
 system buttons 99

T
 tab 107
 table 29
 tablinum 140
 tail 32
 tail edge 33
 tailpiece 60, 72
 take-up handle 123
 take-up spool 45
 talking drum 61
 tambourine 96
 tank 56, 57
 tape 107, 118
 tape measure 108
 tapestry bobbin 121
 tarlatan 25
 tele-converter 51
 telephoto lens 50
 telescoping leg 55
 temperature control knob 131
 temple 28, 124
 Temple of Huizilopochtli 155
 Temple of Tlaloc 154
 tempo control 101
 tempo scale 66
 temporary exhibition rooms 9
 tenaille 147
 tenon saw 28
 tenor drum 94
 tension block 102, 105, 114
 tension dial 105, 112, 114
 tension disk 105, 114
 tension guide 114
 tension rod 95, 96
 tension rope 61
 tension screw 94
 tension spring 105, 114
 tepee 166
 terreplein 147
 tertiary colors 17
 theater 41
 theater, Greek 133
 thimble 108
 third 63
 third valve slide 93
 thirty-second note 65
 thirty-second rest 64
 thread guide 102, 105, 106
 thread take-up lever 102
 thread trimmer 106
 three-four time 62
 thrust device 35
 thrust tube 35
 thumb hook 92
 thumb piston 82
 thumb rest 89
 ticket clerk 36
 ticket office 8
 tie 65
 tie rod 95
 tier 142
 tierceron 149
 tiers 133
 tile 135, 140, 153
 timber 135, 141
 time code 40
 time signatures 62
 timer 131
 timpani 69
 Tlaloc, Temple 154
 toe piston 82
 tom-tom 94
 tone control 76
 tongue 61, 87
 tools, wood carving 20
 tooth 107
 top cylinder 25
 top edge 33
 torus 138, 139
 tower 148
 town houses 168
 tracery 150
 tracing wheel 108
 track 16
 tracker 85
 traditional houses 166
 traditional musical instruments 58
 transept 152
 transept spire 148
 transverse flute 90
 trap 42
 trapdoor 143
 traverse arch 149
 treadle 122
 treadle cord 122
 treble bridge 78
 treble keyboard 58
 treble pickup 76
 treble register 58
 treble tone control 77
 trefoil 151, 157
 triangle 69, 97
 triangular body 60
 triglyph 137
 trimming 29
 trimming tool 129
 trio 70
 tripod 55, 67
 trombone 91
 trombones 69
 trumpet 92
 trumpets 69
 tuba 69, 91
 tubular bells 69, 97
 Tudor 157
 tuning fork 67
 tuning gauge 95
 tuning peg 74, 76, 77
 tuning pin 79
 tuning ring 60
 tuning slide 93
 turning wire 87
 turning 128
 turning wheel 128
 turpentine 18
 turret 144
 twill weave 127
 twin-lens reflex camera 53
 two-storey house 167
 two-two time 62
 tympanum 134, 138, 150

U
 U-shaped gouge 22
 ultracompact camera 52
 underground 143
 underground chamber 132
 underlining 111
 underlying fabrics 111
 underwater camera 52
 unison 63
 up and over garage door 160
 upper landing 163
 upper lip 87
 upperboard 84, 86
 upright 28, 31, 120, 123
 upright piano 78
 upright piano action 80
 upstage 41, 42
 USB port 99
 utility liquids 18

V
 V-shaped gouge 22
 valve 92
 valve casing 92
 variation keys 113
 varnish 18
 varnish-roller 25
 Vauban fortification 146
 vault 149
 velarium 143
 vertical frame 121
 vertical pivoting window 162
 vestibule 140
 vibrato arm 76
 video and digital terminals 47
 view camera 53
 viewfinder 45, 47
 viola 73
 violas 69
 violet 17
 violet-blue 17
 violin 72, 73
 violin family 69, 73
 visual arts 44
 voice edit buttons 99
 voice selector 101
 volume control 76, 77, 99, 101
 volute 138, 139
 voussoir 156

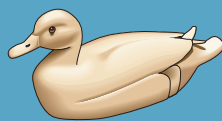
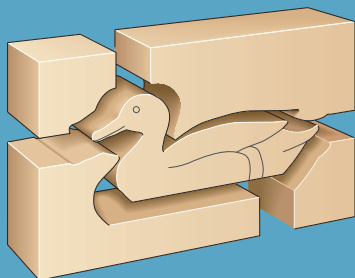
W
 waist 72
 warp 120, 123
 warp roller 123
 warp threads 127
 warping frame 126
 water key 93
 watercolor 11
 watercolor cakes 12
 watercolor tube 12
 waterproof case 54
 wax crayon drawing 11

wax crayons 12
 weaving 120
 weaving pattern brush 112
 weaving pattern lever 112
 weaving principle, diagram 127
 weaving, accessories 125
 webbing 118
 wedge 87
 weft 121, 122
 weft thread 127
 wheel 27, 108
 wheel head 128
 white balance 46
 whole note 65
 whole rest 64
 wide-angle lens 50
 wigwag 166
 winch 165
 wind chest 86
 wind chest table 85
 wind duct 86
 wind instruments 88
 wind supply 84
 wind synthesizer controller 100
 wind trunk 84, 86
 windbag 59
 windows, examples 162
 wing 161
 wings 42
 wire brush 96
 wood carving 19
 wood engraving 23
 woodcut 23
 wooden modeling tools 129
 woodwind family 68
 work sheet 10
 worm 125
 writing brush 34
 writing instruments 34

X
 xD-Picture card 49
 xlyphone 69, 97

Y
 yarn clip 114
 yarn feeder 113
 yarn rod 114
 yarn tension unit 114
 yellow 17
 yellow-green 17
 yurt 166

Z
 zipper 107
 zipper line 110
 zither 59
 zoom lens 50



All the subjects are explained with highly realistic illustrations, accompanied by terminology and concise definitions produced by an experienced group of professionals.

The Visual Dictionary of Art and Architecture takes the reader into a fascinating journey through fine arts, graphic arts, performing arts, photography, music, crafts and classic or modern architecture.

Convenient and affordable, this book is the perfect tool to discover the exciting world of art and architecture!

